











A ~~Mass. Medical College~~  
N

HISTORICAL  
E S S A Y  
ON THE  
D R O P S Y ;

B Y

RICHARD WILKES, M. D.

L A T E O F

WILLENHALL, in the County of STAFFORD.

---

ἤ  
Ἀλλὰ ποτὲ τε μέτρον καὶ σίτη γυμνασίων τε  
Ποιεῖσθαι. μέτρον δὲ λέγω τὸδ' ὃ μή σ' νήσκη.

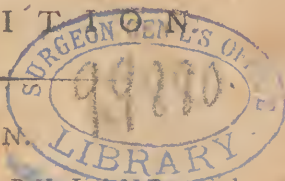
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L O N D O N .

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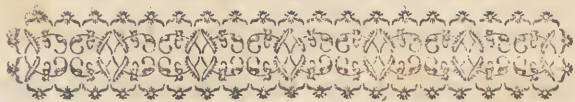
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T H E

## EDITOR'S Preface.

**F**ROM the two following letters it will evidently appear, that Doctor WILKES intended some time or other to publish this Essay upon the Dropsy ; but from his many avocations in his business, of which no one had greater practice, fame and repute, in this and  
A the

the neighbouring counties, than he had, being as remarkable for the cure of the Disease here treated of, as any other to which our bodies are subject; and other very material things happening, that design was laid aside. It may perhaps be thought necessary that I should give the world some reasons for its now being published, which may be done in a few words. The Doctor dying in the year 1760, his library, which was a very valuable one, came to me, among which was this manuscript, and the two before-mentioned letters. I have been told by many that were the Doctor's friends, and well-wishers to me, and such as are esteemed judges in these matters, that it was  
a thou-



a thousand pities, such a work should lie dormant, as it might be of real use to society as well as the faculty. From their solicitations and the great desire I have to do justice and honour to his memory, as far as my abilities will reach, I have at length undertaken to transcribe it, as it was greatly interlined, and very difficult in many places to be made out; but as no one had better opportunity of knowing and being acquainted with the Doctor's hand-writing than myself, having been brought up by him from a child, I thought myself the properest person to perform that office: but as I do not pretend to understand all the physical terms, my studies having been

directed another way, viz. to the care of the soul, if there should be any material mistakes or omisions in the book, I must take the blame to myself, and ask pardon of the learned world.

STAFFORD,  
Jan. 16th,  
1772.

THO<sup>s</sup>. UNETTS.

Copy of a Letter from Dr. BURTON,  
to Dr. WILKES.

Sir,

‘ I THINK myself much obliged  
 ‘ to you for your very useful Trea-  
 ‘ tise of the Dropsy. It is the com-  
 ‘ pleatest I have met with upon that  
 ‘ subject, and the faculty may in al-  
 ‘ most one view look upon everything  
 ‘ that is really worth their knowing  
 ‘ upon that disease. An idle man, if  
 ‘ he reads it with great attention, will  
 ‘ make abundant advantage of your  
 ‘ industry, and may in a few days in-  
 A 3 ‘ form

‘ form himself of what must necessa-  
 ‘ rily have taken up a great deal of  
 ‘ your time, in collecting and digest-  
 ‘ ing into so good order. But as you  
 ‘ desire me to speak as rigidly as an  
 ‘ uncandid person could do of the  
 ‘ performance, such a one might per-  
 ‘ haps say you have entertained us  
 ‘ with too much of other peoples,  
 ‘ and too little of your own : which  
 ‘ was a general censure of our friend  
 ‘ Dr. Holland’s book of the small-  
 ‘ pox. I would not be so far mis-  
 ‘ understood, as to compare his little  
 ‘ treatise with yours, which confes-  
 ‘ ses superior learning, and is infi-  
 ‘ nitely more full and compleat. I  
 ‘ only give you a hint, whether it  
 ‘ may not be adviseable to omit now  
 ‘ and then some of the less material  
 quotations.

‘ quotations. *He would have pleased*  
 ‘ *us more, had he but pleased us less,*  
 ‘ has been a very common tho’ an  
 ‘ uncandid censure of a good per-  
 ‘ formance. For my own part, I  
 ‘ should be unwilling to lose any of  
 ‘ it. But the generality, who will  
 ‘ be offended if they possibly can,  
 ‘ may reflect upon it as a *laborious*  
 ‘ and perhaps a *tedious* collection.  
 ‘ As to the first epithet, I really  
 ‘ think we are greatly obliged and  
 ‘ advantaged by the care you have  
 ‘ taken; as to the second, they must be  
 ‘ very superficial who would not with  
 ‘ pleasure revolve every part of a use-  
 ‘ ful subject, that is so thoroughly  
 ‘ and consequently so satisfactorily  
 ‘ treated. I have been so very much  
 A 4 ‘ engaged

' engaged of late, that I have not ex-  
 ' amined it with that care which it  
 ' deserves. I propose to indulge  
 ' upon it, if you can suffer it some  
 ' time longer in my hands, and to  
 ' give you my thoughts more parti-  
 ' cularly upon it. I will at the same  
 ' time send you a hint or two of the  
 ' use of gas fulphuris given to the quan-  
 ' tity of three drachms in about two  
 ' ounces and an half of a bitter tinc-  
 ' ture twice a day, as a most efficaci-  
 ' ous deobstruent and diuretical me-  
 ' dicine, in this disease, as I have  
 ' frequently experienced. If you  
 ' please to make trial of it, with a  
 ' moderate dose of oxymel scylliti-  
 ' cum at night, I believe you will be  
 ' very well pleased with it. The  
 ' gas

' gas sulphuris. even in so high a dose;  
 ' gives little offence to the stomach.  
 ' Pyrmont water with good old hock,  
 ' acidulated with this volatile gas,  
 ' makes a very grateful and very use-  
 ' ful liquor for a Dropfical patient.  
 ' I lately saw a gentleman, who was  
 ' judged to have the hydrops pectoris  
 ' by his physicians at Derby, and  
 ' came hither to me in a case seem-  
 ' ingly deplorable, in a fortnight's  
 ' time surprisngly relieved by the  
 ' easy method above mentioned.  
 ' After a dyspnœa that he had la-  
 ' boured under for two years, at last  
 ' his legs, thighs, and belly were  
 ' considerably swelled. A jaundice  
 ' was superadded to his Dropsy,  
 ' with great weakness, an entirely  
 ' lost





‘lost appetite, and a very small  
 ‘quantity of a very high-coloured  
 ‘urine. But in little more than a  
 ‘fortnight’s time, his great difficulty  
 ‘of breathing, yellowness, and swell-  
 ‘ling were removed. He made great  
 ‘quantities of water, and recovered  
 ‘his appetite and strength so far,  
 ‘that the beginning of next week he  
 ‘returns into Derbyshire again, where  
 ‘I believe his friends never expected  
 ‘to see him. . I really thought, the  
 ‘night before I directed him the a-  
 ‘bovementioned method, that he  
 ‘could not possibly have subsisted  
 ‘forty-eight hours. I had not trou-  
 ‘bled you, with this case, if the  
 ‘recovery had not been chiefly  
 ‘owing to the only medicine, I  
 ‘think,



‘ think, you have not taken notice  
‘ of in your very valuable treatise,  
‘ by which you have highly obli-  
‘ ged,

Sir,

Your very faithful,

And obedient Servant,

Dover-street,  
Sept. 16th,  
1731.

T. BURTON.

Copy of a Letter, from Dr. WILKES,  
to Dr. BURTON.

Willenhall, Sept. 25th, 1731.

S I R,

‘ I AM not at all ambitious of be-  
 ‘ coming an author, but if I should,  
 ‘ I shall most certainly observe the di-  
 ‘ rections of Horace---Si quid tamen  
 ‘ olim scripseris, in metu descendat  
 ‘ judicis aures, et patris, et nostras,  
 ‘ nonumque prematur in annum, &c.  
 ‘ Physick, after all the improvements  
 ‘ hitherto made, is even at this day but  
 ‘ con-

‘ conjectural. It has long been my  
 ‘ opinion, that the only way to bring  
 ‘ it to certainty, would be to shew in  
 ‘ one view, what has been already  
 ‘ done in each distemper, that by this  
 ‘ means we might be assured what  
 ‘ was really wanting, for many things  
 ‘ of the antients, have frequently  
 ‘ been published for new inventions.  
 ‘ If in my Essay I have done this in  
 ‘ the Dropsy, I have my aim ; but  
 ‘ must leave it to you and the learned  
 ‘ to determine, whether my way of  
 ‘ thinking is right. You see I have  
 ‘ taken some pains in this affair ;  
 ‘ and I was unwilling to go farther,  
 ‘ till I knew how my friends appro-  
 ‘ ved the design. Sir John Floyer has  
 ‘ perused the essay, and encourages  
 ‘ me

‘ me to proceed to finish it, but I  
 ‘ shall much sooner rely upon your  
 ‘ judgment. I presumed on your  
 ‘ goodness, and sent you the rough  
 ‘ draught ; but I ought to ask par-  
 ‘ don for it, because I am sensible  
 ‘ there are many excrescencies to be  
 ‘ pared off, and many deficiencies,  
 ‘ I fear, to be supplied ; of which  
 ‘ the gas sulph. is one, for which I  
 ‘ shall always own the obligation.  
 ‘ Perfection is what one of my mean  
 ‘ abilities and obscurity can have no  
 ‘ pretence to ; but as you have been  
 ‘ always ready to assist me in diffi-  
 ‘ culties, so now if you’ll please to  
 ‘ favour me with your observations  
 ‘ on this work, I shall hope to see it  
 ‘ correct at least, if not absolutely  
 ‘ perfect.

‘ perfect. ’Tis true it chiefly con-  
 ‘ sists of the labours of other men,  
 ‘ but as it is *historical*, I thought I  
 ‘ ought to produce vouchers for  
 ‘ every thing I advanced. No one  
 ‘ man I believe ever saw all the se-  
 ‘ veral sorts of Dropsies mentioned  
 ‘ in the anatomical histories; and I  
 ‘ am sure no one man could invent  
 ‘ all the different methods of cure,  
 ‘ and the great variety of medi-  
 ‘ cines, which I have there collected.  
 ‘ I beg that in your observations  
 ‘ you would act with the utmost  
 ‘ severity; because when a friend  
 ‘ gives correction, his hand is apt to  
 ‘ be too tender and gentle. You  
 ‘ may have the book as long as you  
 ‘ please; and when I have transcri-  
 ‘ bed

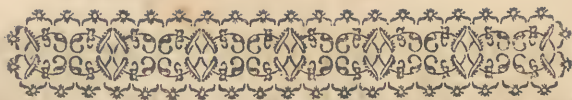
‘ bed it again, I hope it will appear  
‘ before you in a much better dress ;  
‘ and am,

Sir,

Your most obedient,

And very humble Servant,

RICH<sup>d</sup>. WILKES.



T H E

# P R E F A C E.

**W**HEN we talk of the nature of things, and frame arguments from thence *a priori*, as they are called, we are all in the dark ; and such arguments must be true or false purely as they are supported or contradicted by particular matters of fact. Induction is the only sure way that we have of coming at truth ; which made the old  
b philosophers

The nature of things, how known to us.



philosophers say, it lay in a deep well, and was therefore hard to be come at. Such arts only are now perfect, where an enumeration has been made of all the particular cases that can possibly happen in them. From these particulars, those general rules are formed which are given by the best masters. In trigonometry, whether plain or spherical, all the cases that ever can occur to us must come within a certain number, now known to every body. In geometry, all sort of curves that can be drawn have been enumerated, and from thence their nature, whether as squarable or not, is easily learnt: and in logic, all the syllogisms that can be formed must come within such a number of modes and figures. By observing the constant  
motion



motion of the planets, and their being found in such and such parts of the heavens, at such and such times of the year, the curves they describe, the time of their revolutions, eclipses, &c. have come to be determined to the utmost nicety, and the nature of comets must in time be discovered. By this means such things as appeared to be beyond the compass of human reason, have been made plain and easy even to mean capacities. There has however in all ages been a reservedness in great men ; I know not whether it may not better deserve the name of pride ; which has been of vast disadvantage to the world. I mean that method of keeping their discoveries as secrets, or proposing them as difficulties, when they them-

selves were already masters of them. By this means the progress of arts and sciences has been much hindered, and the time of ingenuous persons employed about trifles, which might have been of much greater service to mankind. This is one : but the greatest reason why the art of healing, after so many thousand years, is yet so far from perfection, is, because such an enumeration has not been made of all the diseases a human body is subject to, and from thence of their true theory, and all the possible ways of curing them. The antients undoubtedly set out right, when they only made use of simple medicines in all their disorders, and when any was found serviceable recorded it in their temples. Had this method been pursued,

Why the  
art of  
physic is  
so far  
from per-  
fection.

fued, we might at this day have seen as certain rules in this as any other art ; but men thought themselves masters of the business too soon, and therefore ran into the theory of diseases, and composition of medicines, before they had laid a sufficient foundation in the particulars of either. They indeed wanted what we enjoy, a good foundation in anatomy, and from thence the circulation of the blood and juices. These are the basis upon which the nature of all disorders are founded, and from thence they must be accounted for.

Our commerce with the Indian, American, and other parts of the world, has furnished us with many

b 3

simples

Simple  
medi-  
cines not  
yet suffi-  
ciently  
tried.

simples unknown to them ; and the art of chymistry has supplied us with a number of compounds, whose force and efficacy is much greater than those of any medicine they were acquainted withal. Since physick has been made a trade, there is not indeed so much room left for the use of simple medicines ; and yet, in extreme cases, we must always trust to one, otherwise we may as well kill as cure. By this method, Opium has been found to be infallible in easing pain, and giving a check to all kinds of fluxes ; and by this method, the Peruvian Bark has been found as certain in the cure of intermitting fevers and mortifications. At present we seem to be satisfied that cancers are incurable, and that  
all

all scrophulous tumours are very hard to be removed : but if we have regard to the nature of these disorders, we know they can only be caused by an obstructed circulation, and that the reason why we now pronounce them so much above the power of medicine, is, because we have not sufficiently tried the power of several simples in these disorders.

Had we a sufficient number of histories shewing how far each simple would go, either in stopping or removing such kind of obstructions, we might then, with far more certainty than we can at present, pronounce which of them was curable or otherwise. Diacodium and spirits of vitriol

b 4

have



have but lately been found serviceable in the small-pox ; so has spirits of hartshorn in children's convulsions, and obstructed perspiration, which is the general cause of fevers. The latter of these has already much lessened the consumption of theriaca and diascordium, those tedious and nauseous compositions of the anti-ents, and will in time, if I guess right, quite drive them from their strong hold the dispensatory. In all fevers more may now be done by this spirit, Riverius's mixture of salt of wormwood, and juice of lemons, or the spirits and elixir of vitriol, rhubarb, ipecacuanha, cantharides, and the bark, than by all the numberless numbers of medicines to be met with

with in the Greek, Roman, Arabian, and German physicians. (a)

As to the theory of diseases : since philosophy has been introduced into physic, we find it has undergone many alterations, according as this or that has been the fashionable system. The doctrines of Aristotle, Des Cartes, and the chymists, have all had their several turns in this account, and, like tapers, have only been lighted up to supply the true fun for a time ; but, at their going out, have left the world in the same darkness as it was before their appearance. The business of attraction, and mathematical calculations, at present engross all our thoughts, and hardly any thing in

True  
theory of  
diseases,  
whence.

(a) See Obs. 4. Ch. 6.

in phyfic will go down with us without a diagram or algebraical equation.

'Tis true our bodies are only a regular mafs of folids and fluids, put together in a moft beautiful order.

The latter move, in a healthy ftate, with great regularity and exactnefs ; and when the body is out of order, this motion is very much altered and confufed. All this every body muft allow ; but then before we can come to any certainty in this cafe, we muft exactly know all the feveral kinds of fluids whereof our bodies confift.

'Tis but lately that the lymph and its circnlation was difcovered ; the animal fpirits are yet a thing in difpute ; and whether time may difcover any other fort, is what no man at prefent can affirm. Now when thefe  
fluids



fluids are all once known ; their different communications one with another, and the general laws of fluids moving in conical and cylindrical tubes once settled, (for at present I can't find that they are) then, and not till then, we may perhaps have the nature of an intermitting fever expressed by a biquadratic or some other kind of equation ; and that of a continued one, by an equation of a higher power. The gout and cancer may then come under some of the forms in Sir Isaac Newton's quadrature of curves, or of a multinomial consisting of more terms than any in this, or any other author, who has yet written upon fluxions. As the case now stands, we must not expect any thing of this kind. There  
are

are too many things wanting to bring the theory of diseases to so much certainty; and therefore I shall only observe, that till the large gap in the desiderata which Dr. Cheney (*a*) has discovered in this kind of theory is filled up, we must despair of seeing any such equations. Besides, could we hope to see such kind of calculations, there are few persons I fear would be able to apply the theorem in particular cases with advantage to their patients; because, in such tedious calculations as some of them must be, a mistake of a letter, figure, or sign, might ruin all, and by a small slip of the pen destroy the life of the  
party

(*a*) See his Theory of Medicine, before his new Theory of Fevers. p. 23.

party we were so desirous to preserve.

A mathematical theory of diseases then not being likely to appear in our time, upon the foundation mentioned above ; and if it did, since there might be great difficulty and hazard in the application ; I have undertaken in the following sheets, in another way, to settle the theory and cure of a disease, which carries off great numbers of both sexes yearly. If what I have here written will but contribute to the saving the life of any one person, I shall think my time, which has not been a little, very well employed ; and if I am any way mistaken, I hope I shall meet with a favourable excuse, at least from the learned and candid

What is to be expected in the following discourse.

candid reader, since it was undertaken with a good design ; and as for critical and other ill-natured censures, I shall both despise them and their authors.

The following treatise then is founded upon the solid basis of induction. A man may with ease write a theory of a distemper, and so fit cases exactly to that theory : but this I think is a very erroneous way of proceeding, and is never likely to bring matters to a certainty. I have taken a very different course ; but whether the rest of the world will be of my opinion I know not ; only this I can safely say, some of those who are now at the head of our profession  
gave

gave me encouragement to go thro' with the undertaking.

The cases here picked up were written by several persons in different ages, without so much as once thinking of the use that is here made of them: and therefore, if the conclusions I have drawn from them are such as naturally and easily follow from the premises, I hope the world may receive them as certain and undeniable truths. By this method of writing, the labour, great care and pains of our predecessors may be made serviceable to posterity, and consequently may very justly be said to answer the end for which they were recorded. I am apt to think no man now living, or that ever did live in any age or place,



place, has or ever had an opportunity of collecting such a great variety of cases from his own experience ; and therefore I hope, as the whole design is historical, I shall not be called a plagiarist, for making so free with the writings of other men. The very nature of a work like this is founded upon what has happened at all times, and in all parts of the world, and must therefore be collected from the writings of the best authors ; and of such only I hope I have here made choice. In the history of mens actions, as they happen but once, the authors, which lived nearest those times, always bear the greatest sway with us, and their testimonies must in a great measure force our assent. In this treatise, every article is taken  
from

from the relations of such as were eye-witnesses of and privy to every thing that happened during the whole scene of action, so that nothing can in this case be required farther, especially, since it cannot be supposed they could have any advantage by imposing upon us with their narrations. Now as a human body is, and must be the same in all ages, as to the fluids and solids whereof it is composed, so it must consequently be subject in all the ages of the world to the same kind of disorders. Tis true, luxury will add some new diseases to the account, and will perhaps heighten the symptoms of the old ones : But in the general, I think we may fairly conclude, that the things which have in any case given relief heretofore, may in the like circumstances in succeeding generations do the same again. If more of the common dis-



eases were treated in the same manner, we should most certainly know the nature of them better than we do at present, and might more readily know when to expect, and how to set about their cure. For my own part, I should be extremely pleased with such accounts, and am in hopes of seeing something of this kind come from the pens of such whose abilities are far superior to mine. I don't think it reasonable that theory should only meet with encouragement, when the practical part of physic is chiefly to be regarded. If we had not so many general systems, but more particular accounts of several diseases, the world would receive more advantage from the writings of great men, than it does at present, for tho' many undertake, very few, or perhaps none, are capable of performing so great a work.

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## C H A P. I.

### *Of the Name, and several Kinds of* D R O P S I E S.

---

**A**LMOST all the nations of Europe have given a name to the distemper, whereof I propose a short history in the following sheets, that either signifies water absolutely, or has some allusion to it. The Greeks frequently called it only (*a*) water, and sometimes joined in composition a (*b*) word signifying the face, aspect, or external appearance of a thing; so that by both together they meant, that the person afflicted with this disorder, had too much water in him, as was evident by his complexion. The (*c*) Romans; and from them the (*d*) French, and

B many

Whence the  
word Dropsy.

(*a*) ὕδωρ, ὑδρὸς, water. (*b*) ὤψ, the face, aspect, or external appearance of a thing; whence ὑδρῶψ and (*c*) Hydrops, Hydropisis. They also called it aqua intercus or aqua inter cutem, *i. e.* water within, or under the skin. (*d*) Hydropisie.

## Of THE SEVERAL KINDS

many other nations, derive their names of this disease from the latter of these Greek words. Perhaps some may think our word Dropsy is of the same origin; but I am of opinion, we have it from our Saxon ancestors. With them *dropas* was the same as *drops* are now, and *ea* or *ey* the same as water; so that altho' the word comes from a different quarter, yet the distemper which we mean by it, is the very same as it was among the Greeks and Romans.

We often say in English, that a humour falls upon this or that part of the body, and so causes illness.

The antients had the same idea, and accordingly gave names to several disorders which are all derived from words of the like signification. Catarrh, Diarrhæa, and Rheumatism, all come from a (*e*) Greek verb, which signifies to flow or run like water. Gout, and Gutteta (*f*), a name sometimes given to the Epilepsy or falling-sickness, come from a Latin word, for a drop:

(*e*) *flw*, to run or flow like water.

(*f*) Gutta a drop, thence la gouté, gout; and la goutte de tete, the drop of the head, whence gutteta, the falling-sickness.

drop: and the word Diabetes (*g*) means no more than a syphon or tube, thro' which water passes. This last disease is likewise sometimes called a Dropsy to the chamber-pot (*b*), and a Diarrhæa by urine.

The Dropsy is a disease, says Aretæus, which is common to all ages and sexes; men, women and children, being afflicted with it indifferently, tho' some bodies are more liable to it than others. Women after the time of their menses, are much more frequent sufferers by it than at any other age; tho' young ones, especially those that are barren, often yield to its too powerful attacks. There are some sorts peculiar only to men, as the Hydrocele; some to women, as the Hydrops uteri; and some more frequently happen to children, as the Hydrocephalus.

Who subject to it.

Hippocrates, Aretæus, and some other of the antients, made four sorts of Dropsies. If the belly swelled, and when struck upon would sound like a drum, they called it a Tympany (*i*). If it swelled round with a

Its several kinds.

1. Tympany.

B 2

pro-

(*g*) διαθήτης, a siphon, pipe, faucet, &c.

(*b*) ὕδρεος εἰς ἀμίδα: διαρροία εἰς οἶδα.

(*i*) τυμπανίτης, τυμπανίας, Tympanites; from τύμπανον a drum.

2. Ascites.

protuberance like a bottle, they gave it the name (*k*) Ascites; if the whole body swelled, and the skin seemed to be filled with a white, thick, cold phlegm, it obtained the name of Phlegmacy, or (*l*) Leucophlegmacy.

3. Leucophlegmacy.

C. Aurelianus (*m*) 'tis true assigns another reason for this name; for he says, that in this distemper some vomit up a white, thick humour, and that others void it by stool; from whence 'tis probable this name may as well be derived, as from the colour of the sick person's skin. Lastly, if the swelling of the whole body continues, the flesh wastes, and turns to a watry, bloody and thin humour, like that which flows from ulcers of the intestines, or such as is let out from under the skin after a bruise; then, says (*n*) Aretæus, we call it an Anasarca.

4. Anasarca.

How often disorders of this kind might be found in Cappadocia, is out of my power to determine; but I think I may be pretty positive that few or none such are now,

or

(*k*) ἀσκίτις, ascites; from ἀσκής, a bottle.

(*l*) φλεγματίας, λευκοφλεγματίας, from φλεγμα, phlegm.

(*m*) C. Aurel. cap. 8. p. 470.

(*n*) Aret. op. p. 57. Ἀνασάρκα, from ἀνα, all over and σαρκός, the flesh.



or ever were, to be met with in Great Britain.

Others of the antients, as P. Ægineta, Al. Trallian, and many of the moderns, allow of three sorts only: viz. the Ascites, Tympany and Anasarca, leaving out of the account the Leucophlegmacy, which seems to be a species of the Anasarca; and tho' perhaps common enough in Greece, yet, according to Mr. Lister, is very rarely found in England.

If we take a strict view of these several opinions of the antients about the different kinds of this distemper, we shall find that, according to their own doctrine, there could be only two sorts of Dropsies; viz. the Ascites and the Anasarca; for in a Tympany they supposed there was little or no water (o); and a Leucophlegmacy differs only in degree from an Anasarca, as will I hope in the following discourse most evidently appear.

Reduced to  
two.

B 3

Diocles

(o) Hippocrates by a catachresis, according to some, calls this disorder *ὕδρωπα ξηρὴν*, the dry dropsy or dropsy without water; tho' others think by these words he only means a dropsy that is attended with a dry belly or costiveness.

Hepatitis  
and Splen-  
itis.

Diocles (*p*) gave the name of Hepatitis and Splenitis to the Ascites, because he and many others after him supposed, that this disorder always came from a fault of the spleen or liver; but this doctrine will be proved to be erroneous in the sequel of this discourse.

Original and  
symptoma-  
tical.

Al. Trallian (*q*) says, all dropfies may be considered as original or symptomatical; the former coming from an ill habit of body only, the latter being the offspring of other diseases.

Bilious and  
lymphatic.

Dr. Leigh divides this distemper into the bilious and lymphatic; but as this distinction is founded in the causes of this disorder, he might either have left out the first sort, or might have added several more: for as a bilious Dropsy, according to him, proceeds from thick condensed choler, obstructing both the glands and biliary pores of the liver; so the pancreatic, nephritic, &c. might equally deserve a place in his account, when the juices of the pancreas, kidneys, &c. become so viscid as to  
swell

(*p*) C. Aurelian. cap. 8. p. 471. *ἥπατις*, from *ἥπαρ* the liver: *σπληνίτις*, from *σπλήν* the spleen.

(*q*) Al. Tral. op. p. 136.



swell and fill those viscera with a watry humour. (*r*)

Hippocrates (*f*) is the first, and almost the only author, who makes mention of an hereditary Dropfy, or one that is derived to us by our parents. Many distempers, viz. gout, rheumatism, consumption, asthma, &c. are by the generality of mankind allowed to be hereditary; but there is not any hypothesis yet advanced in Physic, which is able to give satisfaction to the mind of an inquisitive person about the reason why this should be so. Hence I presume it is, that this kind of Dropfy, tho' mentioned by the divine old man, is so rarely to be found in authors of a later date. 'Tis possible that the present nor any subsequent principles of natural philosophy may not be able to solve this and many other difficulties; but that this is so in fact, is out of the power of the greatest sceptic to dispute. I have a female relation about 50 years of age, who has been subject to a

B 4

Dropfy

(*r*) Dr. Leigh's natural history of Cheshire, &c. B. 2. p. 69.

(*f*) Lib. prædict. 2. p. 89. ἀπὸ γόνυς, from the birth, or semen genitale.

Dropsy from her infancy. Her mother laboured under the same disorder when she was with child of her, and after some years died of this obstinate distemper. For twenty years together this young woman took all manner of medicines, that could be contrived for her by the best physicians which were then in the neighbourhood, in hopes, some time or other, to get quit of this so troublesome a companion; but all to no purpose.

For these last eighteen or twenty years of her life, she has constantly taken, about the time of the equinoxes, two or three doses of some brisk purging medicine; and now and then at other times of the year, when the swelling of her legs, belly, or shortness of breath has increased upon her to any degree. By this means she has enjoyed a tolerable good state of health from the time she began with this method, and is now *(t)* able to perform all the necessary affairs of life, without much trouble to herself, or those that are about her.

A French

*(t)* So said 1740.

A French surgeon (*u*) has lately given us a couple of new names for a dropsy. According to him all dropfies are caused by effusion or infiltration. When any part of the body swells gently, the humour being very thin and subtile, that part is said to be infiltrated with the humour. This way of expression Mr. Le Dran (*x*) often uses, and it is now common among the French surgeons. When the humour is more gross, and the tumour comes on quicker, the vessels perhaps being burst, it is then said to be caused by effusion. Much has been advanced concerning the propriety of these expressions, and whoever has a mind to be satisfied may consult the authors here quoted. (*y*)

By effusion  
and infiltra-  
tion.

Nuck (*z*) first mentioned the Hydrops sacculus, or Bag-dropsy. Here the water is included in a cystis, bag or hydatid. This is a proper distinction as will appear by several examples to be met with in this treatise.

Bag-dropsy.

When there are more than one of these bags, or hydatids, it may then not improperly

(*u*) Garengeot's chirurg. operat. p. 144.

(*x*) See his operations.

(*y*) Adenographia curiosa, p. 127.

(*z*) Dr. Friend's hist. of physic, vol. 2. p. and Med. Ess. Edin. vol. 1. p. 242.

Vesicular.

perly be called *Hydrops vesicularis*, or the Bladder-dropfy. Aretæus (*a*) makes mention of this kind; 'tis very common, and many histories of it may be found in this essay.

Hot and cold.

As some dropfies are attended with great heat, thirst, pain in the legs, feet, &c, &c. others are more cold, without any of these symptoms; so the former sort may not improperly be called hot or inflammatory dropfies, and the latter cold or phlegmatic.

Partial and universal.

The most easy and natural division of dropfies, in my opinion, is into partial and universal; the former sort affecting some one part of the body only, and the latter spreading itself all over from head to foot: this may be called an *Anasarca*, as the former will take its name from the part affected, the general word *Dropfy* being joined to it. In the abdomen 'tis always an *Ascites*; but in the head, breast, womb, &c. 'tis a *Dropfy* of the head, breast, &c.

Now tho' according to this last division we suppose the seat of a partial *Dropfy* to be fixed in one part of the body only, yet we must allow that in time many other even  
remote

(*a*) De chronic. lib. 6. cap. 1.

remote parts may be affected. Thus in the Ascites, tho' the part which first suffers must be some of the viscera contained in the cavity of the abdomen, yet in time the legs, scrotum, &c. will swell, the breath will become short, and many other dangerous and troublesome symptoms by degrees will arise.

Montanus tells us, that he had seen a man dropfical in his arm, and another in his neck only; and that a dropfy therefore may be looked upon as an Abscess, which may happen to any part of the body. (*b*) This indeed is the only true light in which a Dropfy should be viewed; for it will hereafter be plainly proved, that in a confirmed Dropfy the lymphatics must be burst, and that they consequently must discharge their contents upon the part affected, which is in reality an Abscess, tho' the blood-vessels are not broken; for tho' lymph may at first be extremely clear and transparent, it will soon thicken when the membranes inflame.

Considered  
as an ab-  
scess.

Before I quit this head, I must beg leave to make one observation, viz. that in reading antient authors, whether Greek, or Latin, the word Hydrops is generally to be

(*b*) J. Bapt. Montan. consil. p. 635.



be understood of the Ascites, or Dropsy of the belly only. Indeed the generality of mankind; even at this day, take the word Dropsy in the same sense. This I presume is owing to Dropsies happening more frequently in this, than any other part of the body.

There is but one other division of this distemper worthy to be mentioned here. With regard to the time of duration, Dropsies may be called acute or galloping; and slow or chronical. Instances of both kinds may be met with in the following histories,

Accute and  
Chronical.

CHAP.

C H A P. II.

*Anatomical histories of such persons, as have been adjudged to be drop-sical in some part or other of the body while alive, or after death have been found so.*

SECT. I. In the head.

Hist. 1. **A** GENTLEMAN about 40 years of age, had a large tumor on the os lamboides, somewhat bigger than a goose egg. It was taken off by incision, and in it was contained a crude serum, and towards the bottom of it were some dregs that seemed to be a melicerous matter. (c)

Water on the outside.

Hist. 2. A boy at three months old, born of sound parents, had his head begin to swell,

Within the skull.



swell, and in less than five months more it was grown to be much larger than that of a man. The parts were so distended and the water so clear, that the child's head being placed against a candle or the sun, the water might very easily be distinguished. A young surgeon opened the fore-part of the skull on the right side, from which wound about a pint of clear water was discharged. This flux could not be stopped by any art, so that the child died in 36 hours, being then 9 months and 4 days old. (*d*)

Hist. 3. In the head of a child two years and a half old, there were found five quarts of a thin, pale, insipid liquor, which lay between the dura and pia mater, and in the ventricles of the brain.

This child was always merry, and neither troubled with drowsiness, pain in the head, want of appetite, or indigestion, only his sight and sense of smelling were not very acute. It was only troubled with gripes two or three days before it died. All the viscera were found, but the guts were extremely full of (*e*) wind. This water has sometimes

(*d*) Fabr. Hildan. cent. 3. obs. 17.

(*e*) Philos. trans. abridg. vol. 3. p. 28, 29.

times been discharged at the ears, as in the case of a patient of Odonus at Bonona, who being ill of a fever with pain in the head, a large measure of clear water came this way from him. (*f*)

Hist. 4. The head of a boy about seven months old, without any preceding illness, began to swell, and at the end of two years and a half he fell into a lethargy, and died; when the circumference was more than an ell and quarter and something more from ear to ear over cross. In the two anterior ventricles of the brain were nine quarts of water clear as crystal, the substance of the brain being distended like a sack. The dura and pia mater were stretched in the same manner, but whole; and the skull was so very thin, that it seemed more like a membrane than a bony substance. There was no visible passage to be found, whereby this water made its way into the head. All the other viscera were found.

He eat, drank, and slept well; but the body was emaciated. He could neither hear, see, speak or understand, and his  
arms,

arms, legs, and eyes, were often convulsed. (*g*)

Hist. 5. A boy about five years old had his head as big as a man's, so that he could not bear up the weight of it, but was forced to lye upon the bed continually 'till he died. In this head were five pints of water; which being taken away, there appeared nothing but an empty cavity, so that many thought there had been no brain. At length it was found to have lost its spherical form by the pressure of the water, and like a thick membrane to adhere closely to the arched circumference of the divided bones. This child retained his senses all along, which seemed wonderful; since many have been seized with the falling-sickness, lethargy, foolishness, and incurable madness, when by any accident the form of the brain has been altered. (*b*)

Hydatides.

Hist. 6. That great scholar and statesman, Thomas Sackville, Lord Buckhurst, and

(*g*) Fabr. Hild. cent. 1. obs. 10. See also cent. 3. obs. 19. and C. Piso de colluv. ferof. obs. 83 & 93.--- J. Schenk. obs. med. l. 1. p. 11.

(*b*) N. Tulp. lib. 1. obs. 24. See also Philos. trans. abridg. vol. 3. p. 26.---Cheselden's, anatom. p. 223. and Dr. Turner's art of surgery, vol. 1. p. 196, &c.

and first Earl of Dorset; who had been so long in favour with Queen Elizabeth, died at the council table, 13 March 1603, as he was taking a paper out of his bosom. Hydatides

Many conjectures were made, and several reasons assigned, for his sudden death; but upon opening his head, there were found in it several little bags or bladders full of clear water, one or more of which Mr. Eachard (*i*) supposes might burst, and so instantly cause a total privation of sense, motion, and life.

Hist. 7. On the 18th of November 1692, a boy of 14 dying, who had long been afflicted with delirium and convulsions, a large glass of clear water was found extravasated in the anterior ventricles of the brain, which was the cause of all the symptoms, and his death (*k*).

Hist. 8. On the 22d of December, 1739, died one Mrs. Bennet of Woolverhampton, who for many months had complained by fits of a pain in the right side of her head near the coronal suture, which she said might

C

be

(*i*) Hist. of Engl. b. 4. c. 1. p. 926.---Bale's diction. under the word Dorset.

(*k*) M. Saviard Obs. Chirurg. 89.

be covered with a half-penny. This was called *Clavus Hystericus*, and all her disorder hysterical. During the last month or six weeks of her life, whenever the pain was most severe, her urine came from her insensibly, and about a fortnight before her death, she lost the use of her left arm and leg. She generally, when in pain, turned her head backwards, her face being upwards, which I thought convulsive, but those about her said it was a custom or trick which she had acquired. Between the cerebrum and cerebellum was six or eight ounces of an insipid water, clear as from a spring or still, that would not coagulate with heat, but evaporated entirely, leaving only a small quantity of salt behind. Under the dura mater where the pain had been, was a small substance of the reticular, or polypus kind, that ran across the substance of the brain towards the left side. For a long time, her pain came regularly, as an intermitting fever; but her urine was now without a sediment. The bark, hysteric medicines, blisters, seton, cathartics, &c. were of no service; and after the paralytic stroke, her urine had a large sediment, but it gave her no manner of relief.

Hist.



Hist. 9. About twenty years ago one Dr. Congreve, of the same place, who during his illness, always hung his head downwards, and generally rested it upon a pillow laid on a table before him, some time before he died became comatous, or rather stupid, taking little or no notice of any thing. In his head, under the dura mater, was about a pint of extravasated lymph, which moved backwards and forwards as he moved his head. He was most sensible when the water lay backwards, and he was best when it pressed forward on the cerebrum.

Hist. 10. A child about three years of age was subject to obstructed viscera, had a large head, which at length grew œdematous, as well as the face, and was ricketty; yet was as sensible as any child of its age, till within a day or two of its death. Upon dissection, the cranium appeared of an uncommon make, very thick and soft: about the ossa frontis and occipitis it was about half an inch thick, and in some other places it was more than three quarters. The two tables were

Between  
the tables.

or rather a kind of diploe, or cells made of the same striæ, and filled, not so properly with a meditullium, as a cruor, or bloody serum. The callous part of the medulla was so very pappy, separable, and as it were rotten, that it might more properly be called pulticular, for it would scarce suffer the touch, without being as it were marked thereby. (l)

On the  
outside.

*From  
Resection  
vide st  
Hist. 1)*

Hist. 11. A gentleman about forty years of age, had a large tumour on the os lambdoides, somewhat bigger than a goose egg. It was taken off by incision, and in it was contained a crude serum, and towards the bottom of it were some dregs that seemed to be a melicerous matter. (m)

Both  
within  
and with  
out.

Hist. 12. An infant, about ten days old, had two tumours on the os lambdoides, much resembling cupping-glasses. They had their origin from within the skull, their cystis from the dura mater, and the holes which they came out of were about the bigness of a half-crown. There was a great quantity of water within the meninges, and in the ventricles. A gelatinous substance  
was

(l) Turner's Art of Surgery, vol. 1. p. 196.

(m) Wiseman's Surgery, vol. 1. p. 219,



was likewise found about all the vessels on the upper part, and under the basis of the brain. (*n*)

Wepfer, in his *Treatise de Morbis Capitis*, furnishes us with a great many histories of this kind, especially in Obs. 21, 23, 28, 29, 30, and 31; to which author the reader is referred for farther satisfaction.

#### OBSERVATIONS.

1. From these histories we may see to what a prodigious size the heads of young children may be distended by a dropscical humour: that the very bones of the head themselves may be altered by such a one: and that the effects of it upon the brain, and consequently upon the senses, are very surprising, but not always the same.

2. Young children are often born with soft tumours upon some part of the head or other, which have by unskilful surgeons been opened to the certain destruction of the patient; when a little patience, some spirituous application, and very gentle bandage might have given relief. Mr. Le Dran, in his first observation, gives us a history of such a tumour on the parietal bone, which al-

most equalled it in extent. For some time he doubted whether it was a false aneurism, or a hernia, that is a Dropsy of the brain; but by applying compresses dipped in brandy, which were only pressed by the cap, and suffered to lie twenty-four hours without being removed, the tumour in a month's time disappeared.

About fifteen years ago, the only son of a baronet in this country had, when born, such a tumour on the os lambdoides, which a surgeon would very fain have opened. I luckily prevented the operation, and by such a spirituous application, and very gentle bandage, it soon vanished; the young gentleman being now alive and hearty.

## S E C T. II. *In the EYES.*

Hist. 13. A young man had one of his eyes as big as a hen's egg, very fair, without blemish, rheum or redness, and his sight pretty tolerable, of which he was happily cured. This distemper Dr. Turberville justly calls a Dropsy of the eyes. (o)

When the fibres of the lachrymal sac, or the duct into the nose is obstructed, this sac must be distended by the tears which regurgitate

gitate <sup>t</sup> the puncta lachrymalia. This disease some call a Dropsy, others a hernia of the lachrymal sac. (p)

S E C T. III. *In the* NECK.

Hist. 14. A young woman had her menses at eleven years of age. At thirteen she had a swelling in her right cheek, which fell down upon the glands of her neck, and grew to the size of a goose egg. This tumor would not give way to any kind of medicines, and therefore was at length opened; when a large quantity of perfectly clear water being discharged, it immediately subsided, and that side came to the shape of the other. The wound was not long in healing. (q)

S E C T. IV. *In the* BREAST, or THORAX.

Hist. 15. One George Bennet, about fifty years of age, for some time laboured under a scirrhus liver, obstructions of the spleen and mesentery; a continual pain in his head and right shoulder, a distillation upon his lungs, with a cough, and sometimes a pal-

Water  
within  
the ribs.

C 4

pitiation

(p) Med. Ess. vol. 3. p. 284.

(q) River. Obs. 76. c. 1.

pitiation of the heart. On his being opened, the cavity of his breast was full of a serous humour; the right lobe of his lungs was almost consumed; and the left, being very much inflamed, adhered closely to the pleura. In the pericardium was above four pound of bloody and purulent matter; but no visible passage for it, either in the heart or pericardium. (r)

Hist. 16. A man forty-two years of age, who had long laboured under an ill habit of body, being subject to defluxions upon his lungs, was at last troubled with great shortness of breath, often felt a weight above the bastard ribs, on each side his breast; could neither lie upon his back, nor his sides, and when he turned him in bed, perceived something fluctuate in his breast. When any one applied his ear to it, a noise might be heard like the bubbling of boiling water: his belly swelled, and he became exceeding costive. His urine had a white sediment, his appetite was good, and he had little or no thirst. His breast was found full of water, of a reddish colour, as if  
raw

(a) Fabr. Hildan. cent. 1. obs. 43. See also N. Tulp. lib. 2. obs. 16. and Marcel. Donat. de Med. Hist. Mirab. p. 279.

raw flesh had been washed in it, and the abdomen was full of a yellow coloured liquor. (*f*)

Hist. 17. A divine, by taking cold, was seized with a shortness of breath and a fever: he had a swelling in both the hypochondria, which was taken for the cause of these complaints. When opened, the liver was found to be swelled, hard, and full of holes, like a pumice stone, and in the whole cavity of the thorax was a vast quantity of clear water. (*t*)

Hist. 18. A noble peer was troubled with an extraordinary shortness of breath, and contrary to other asthmatics, was always better in bed, or lying horizontally, than sitting or standing: all the viscera were found perfectly sound, but both the cavities of the breast were full of water. (*u*)

Hist. 19. A gentleman of eighty years of age was every night seized with a shortness of breath upon his lying down in bed to sleep, so that he was forced to get up again  
imme-

(*f*) T. Bonnet's Sepulcr. Anatom. p. 358. See J. Schenk. Obs. Med. l. 2. p. 219.

(*t*) C. Pifo de Col. Serof. Obs. 54. T. Bonnet, Med. Sept. Collat. p. 430.

(*u*) Philos. Transf. abrid. vol. 3. p. 77.



immediately, and fly to the window for air. In the whole cavity of his breast was such a vast quantity of water, that the lungs and heart seemed to swim in it. (*v*)

Hist. 20. In a young gentleman, who had for a long time been afflicted with an inveterate asthma and a violent fever, there was found an inflammatory tumour upon the liver, a Dropsy in one side of the breast, and that lobe of the lungs full of vesiculæ; which were filled with a tough, pellucid humour, not unlike the white of eggs (*w*).

Hist. 21. An officer of the army, after a long march in extreme cold weather, began to complain of a continual, fixed, girding pain in the left side of his breast: then he had a continual dry cough, and difficulty of breathing, which upon lying down in bed was ready to suffocate him for some hours. His pulse was all along quick and soft: he had little or no heat, thirst, loss of appetite, or sleep: his feet were cold, and at last his scrotum became œdematous. Upon laughing immoderately, he was seized with great anxiety and shortness of breath, which continued

(*v*) C. Piso de Coll. Serof. Obs. 52.

(*w*) Ibid. Obs. 53.



tinued fifteen hours before he died. A membranous cavity or cystis covered all that side of his breast, which contained more than a gallon of serum; and all the other viscera were found. Hoffman's system, tom. 3. p. 146.

In a cystis  
or bag.

Hist. 22. A young woman about twenty-one years of age, having been long troubled with the green sickness, heard one day, as she was going down stairs, a frightful jolking in her breast like milk or water. Three years after, she died; when there was found in her breast three pints of liquor like cream, contained in a bag, which was capable of holding as much more. This bag ran along the left shoulder, and so obliquely down to the right side of the midriff, with which it closed all along. It was for the most part thicker than the stomach, and in one place thicker than a man's finger. The mediastinum was either wholly wasted, or rather woven into this bag, and so was the pleura, so far as the bag reached. The right lobe of the lungs was consumed, and one third part of the left. All the viscera of the abdomen were found. During her ill state of health,  
this

this woman could never lie on her left side. (*x*)

Matter.

Hist. 23. A student of Magdeburg was seized with an acute pain and swelling about the region of the liver. This was taken for an inflammation by his physicians. It increased daily, notwithstanding all their endeavours; and continued so long, that it was thought the whole body of the liver must have been converted into pus. After he was dead, the liver appeared perfectly sound; but the whole cavity of the thorax was full of matter, and almost all the lungs were consumed. (*y*)

Water  
without  
the ribs.

Hist. 24. A woman about thirty-eight years of age, and of a good habit of body, had a tumor in her breast, which at first was as hard as a stone, but afterwards became red and painful, and at last broke; when there dropped out of the wound a bag consisting of several membranous coats. In it was about eight ounces of clear transparent liquor like water, which was a little fetid to the smell and bitter to the taste. (*z*)

## S E C T.

(*x*) Philof. Transf. abr. vol. 3. p. 76, 77.

(*y*) J. Schenk. Obs. Med. l. 2. p. 239.

(*z*) Med. Eff. Edin. vol. 1. p. 213.

S E C T. V. *In the* PERICARDIUM.

When we are in health the water contained in the Pericardium seldom exceeds two or three spoonfuls. In a person troubled with a palpitation of the heart, and a shortness of breath, C. Pifo (*a*) found the Pericardium distended so as to contain several pints of water. Vieussien (*b*) found a large quantity in the Pericardium of Lewis Aymar, which was of a yellow colour, and, as he proves, was separated by the glands of that membrane. Fab. Hildanus met with four pound (*c*) of bloody matter in it; and Lancisi, we are told, (*d*) once met with half this quantity. It has likewise been found vastly distended with (*e*) wind; and once it contained a large quantity of pus, (*f*) the basis of the heart being ulcerated.

Of the water in the Pericardium.

Hist. 25. One Boccatus, a soldier, died of a Dropsy, at thirty-two years of age, caused by drinking distilled spirits. Upon dif-

(*a*) Obs. 39. de Colluv. serof.

(*b*) De Nov. Vaf. in Corp. hum. System, p. 75.

(*c*) And another time two pound. Obs. 29. Cent. 2.

(*d*) Dr. Friend's Hist. of Phys. vol. 1. p. 197. and so did Gerard Blasius. Obs. Med. p. 31.

(*e*) Ibid. p. 267.

(*f*) Philos. Trans. abr. vol. 3. p. 69.

dissection, the spleen was found to be four times bigger than it should be: the intestines were livid, and almost ready to mortify: the liver was found, but somewhat hard. In the breast was four pound of clear water, and in the Pericardium three pound of a muddy, sharp, corrosive liquor. During his illness this man could not lie upon the right side; had a violent shortness of breath, and made but little urine, which was always exceeding high coloured. (g)

## OBSERVATIONS.

1. From these histories it plainly appears, that a Dropsy of the thorax, or breast, may be caused, 1st, by catarrhs, or defluxions of humours upon the bronchia and lungs; from whence comes a cough, then a shortness of breath, and at last a Dropsy: 2dly, from an inflammation of the membranes within the thorax; or of the lungs and pleura; whence must proceed, 1. a cough; 2. an adhesion of the lungs and pleura; 3. a shortness of breath; and 4. a Dropsy: 3dly, from obstructions in the spleen, liver, mesentery, &c. which are themselves the effects

fects of a viscid and fizy blood, especially in the fair sex. From these must proceed a shortness of breath, which will often end in this kind of Dropsy.

2. In disorders of the thorax or breast, there is no certain sign whereby we may discover what part within the cavity is affected, or in what manner. Here we find one person with a Dropsy in his breast is always best upon lying down in bed, and another is always worse in an horizontal posture. A tumor of one or both the hypochondria is generally a sign of an obstructed liver. Here we meet with this symptom when the liver is perfectly sound, and only a collection of water above the diaphragm. Dr. Hoadly (*b*) mentions a dropfical person who could lie but on one side, yet had not a single drop of water in either cavity of the thorax, his difficulty of breathing being caused by an adhesion of the lungs to the pleura.

3. The sediment of urine, in Dropsies of the breast, gives no relief, though large, and of ever so long continuance.

4. The vesiculæ of the lungs may sometimes be stuffed with viscid matter; at others,  
the

(*b*) Lect. of Respiration, p. 189.



the whole substance of them may be consumed; and large bags or cystises may be formed within the breast, that shall be capable of holding great quantities of water. Any one of these disorders must destroy life, but no physician can by any symptom know which is the case; and if he could, I fear it would hardly be in his power to give relief.

#### S E C T. VI. *In the* STOMACH.

Hist. 26. One Joan Delier, about forty-eight years of age, perceived her belly begin to swell, and so fancied herself with child; but at the end of nine months she became sensible of her mistake. For three years she was able to do the common affairs of life, with little trouble; but then her belly grew so large that she could no longer sustain the weight of it. Afterwards she fell into a fever, great shortness of breath, extreme thirst, and in seven days died. In her belly was contained ninety pints or almost twelve gallons of clear water, which towards the last was thick, dark coloured, and had a sediment. The peritonæum adhered so closely to the fore-part of the stomach, that it could not be separated from it.



it. The omentum lay upon the upper part of the stomach, and the pylorus was almost level with the upper orifice, and just touched it; so that her food passed immediately from one orifice to the other, and so into the duodenum. The diaphragm was squeezed up, so that the lower part of the heart touched, lay upon, and pressed it hard. The liver, spleen, mesentery, and all the other viscera, were found and in their natural state. In the middle of the pylorus was a bag, as thick as a man's thumb, and about the length of the long finger, which was full of clear water, and entered directly into the duodenum. The stomach was an ell in depth, the fibres of its inner coat were relaxed, and separated one from another, and the coat itself was almost covered with hydatides. There was a direct passage for the water out of the stomach into the cavity of the abdomen; so that the dissector very easily passed his probe out of the cavity of the latter into that of the former. (*i*)

S E C T. VII. *In the BACK.*

Hist. 27. A young woman about twenty-five years of age, and of a healthy constitution,

(*i*) River. Op. Med. p. 561. Th. Bonnet Sepulcr. Anat. p. 456.

tion, had a large tumor on the muscles of her Back, without any inflammation. It was opened by incision, and a liquid discharged, which was at first clear as water, and then like honey, but was not contained in a cystis. The wound was healed in less than three weeks. (*k*) Riverius saw five of these cases, whereof only two recovered.

S E C T. VIII. *On the outside of the*  
PERITONÆUM.

Blood and  
water.

Hist. 28. A woman, after the time of her menses, found her belly begin to swell, and so it continued to do till she died. She complained of a pain about the groin, on the right side only. Upon opening the body, eighty pound, or ten gallons, of exceeding black blood was found between the muscles of the abdomen and Peritonæum, and half as much clear water in the cavity. The left tube of the uterus was large, and contained a pound and a half of viscid liquor, with a great quantity of whitish matter. (*l*)

Hist. 29. A gentlewoman about twenty-eight or thirty years of age, had a tumor in  
the

(*k*) Wiseman's Surg. vol. i. p. 205.

(*l*) T. Bonnet. Sepulcr. Anat. p. 453. & Med. Sept. collat. p. 705.

the hypogastric region, which after a long time was pierced with a trochar, and a large quantity of yellow, glutinous lymph was discharged. This operation was often repeated, as often as the part filled; and she found no inconveniency from the tumor. At length she went a journey three hundred leagues, was thrice tapped during the time of it, and at her return had a fever, and made bad urine. A puncture being necessary, the fluid was now like milk, and so taken at first for chyle; but by staining a silver porringer black, was certainly pus. After five months the tumor filled again, when the lady, willing to get a perfect cure, hearkened to a quack, who suffered the matter to break through two holes into the abdomen, which in seventeen days destroyed her. The cystis, which at first contained this lymph, afterwards by the feverish heat made matter, was situated between the muscles of the abdomen and peritonium. (*m*)

S E C T. IX. *Within the* PERITONÆUM.

Of the  
duplica-  
ture of  
the Peri-  
tonæum.

Anatomists are greatly divided in their opinions concerning the duplicature of the Peritonæum. Columbus would make the world believe that he was the person, who first discovered this membrane to consist of two parts; but Galen says this duplicature (*n*) was a thing well known long before his time. Picolhomini, Riolan, Veslingius, and many others, mention this duplicature as a thing certain; whilst Ruysch, Marchetti, and Donglas are as positive on the other side. The last of these authors (*o*) seems to demonstrate that this membrane is every where single; that the membrana adiposa, which spreads itself all over it, has been the occasion of this mistake; and that this membrana adiposa, or cellulosa, is the true seat of Dropsies in this part of the body. Be this as it will, since the authors of the following histories mention them as seated in the duplicature of this membrane, I shall not change their expression; but leave that to the reader's imagination, who may easily conceive the difference, it being, I think,

(*n*) τὸ διπλὴν περιτονᾶιον.

(*o*) Donglas on the Peritonæum.

think, a matter of more curiosity than use; for whether in a healthy or sound body it is one membrane or two, it is certainly capable of being divided into two parts by a dropfical humour, as the following histories will prove beyond contradiction.

Hist. 30. A young woman about seventeen years of age, unmarried, and reputed a virgin, had her belly so swelled in three months time, that many suspected her being with child. She was of a florid complexion, and strong habit of body, had a good stomach, and all her evacuations regular, and was free from thirst, shortness of breath, or any symptom of a Dropsy. For nine months she consulted both physicians and mountebanks to no purpose; when the ill symptoms appearing, she soon became like a skeleton, and refusing to be tapped, died in three months after. The Peritonæum was turned into a bag, by a separation of the interior from the exterior membrane, which so enclosed a large quantity of water, that not one drop of it could pass into the abdomen. The nervous body of the Peritonæum, naturally as thin as fine silk, was here thicker than the hide of an ox. This bag being removed, the viscera appeared in



view, of a pale decayed colour; and in the bag was contained about twenty gallons of a subfaline and somewhat austere serum. In the hypogastric region the membrana adiposa was above two inches thick, and seemed to be no other than a congeries of little bladders contained in their proper capsulæ, and filled with a coagulated lymph. The thighs, legs, and feet, were extremely swelled, and the neck, face, arms, and hands, as much emaciated. The liquid contained in this bag did somewhat resemble water wherein flesh, newly killed, hath been washed, only it was of a little deeper red, and of a more crass hypostasis. (*p*)

Hist. 31. A married woman, about forty years of age, who lived three miles from Shrewsbury, had the common reasons to believe herself with child. At the end of nine months she had the usual signs of labour; but the pains soon left her, and at the end of the next nine months she was seized after the same manner. From this time her belly increased daily, till at length it was forced to be supported by a stool, the weight of it being more than she could bear.

(*p*) Philos. Transf. abr. vol. 1. p. 140. T. Bonnet. Sepul. Anat. p. 492, &c. Fabr. Hildan. obs. 58. Cent. 4.



bear. Thus she lived near thirty years, without any other considerable complaint. In the duplicature of the Peritonæum was found thirteen gallons and a quart of water, which was saltish, had some little fat upon it, and towards the latter running, was tinged with blood. There was also a kind of a bladder lay across the fundus uteri, which was divided into two parts by a cartilaginous substance. In the one of these was a pint and a half of water, and in the other about three quarters of a pint. The liver, and all the other viscera, were found, but forced into an incredible small compass, and the muscles of the abdomen were so dilated as to be scarce discernible. (q)

Hist. 32. A woman had her belly swell from her infancy, but at the time of puberty, her menses not coming regularly, it grew to a prodigious size; yet she could walk, ride, or go up a hill, without much difficulty. About seven years after this she died, when there was found near fourteen gallons of water inclosed between the two coats of the Peritonæum, each of which was grown as thick as a man's little finger.

D 4

All

(q) Philos. Transf. abr. vol. 4. part 2. p. 123, 124.  
Bonnet. Med. Sept. Collat. p. 701.

All the viscera were found, only the left kidney was somewhat larger than it should be; and the tubæ fallopianæ were swelled, and so entirely closed up, that they could not be blown through. (r)

Hist. 33. A woman having her menses irregularly, when about forty years of age became hysterical, and frequently complained of pain and straightness in the hypogastric region, with a protuberance of the navel. About four years after, she complained of a fresh swelling about the uterus, when the navel became as big as a man's fist, and the abdomen increased prodigiously. She now had continual violent pain in her loins, and voided several stones of different magnitudes. She was very thirsty, drank much, and made but little urine, which was always of a pale colour, and attended with pain. At forty-eight, when her menses left her, she voided a great deal of coagulated blood by the womb; whereupon her  
appetite

(r) N. Tulp. obs. 44. lib. 4. Dr. Leigh, in the case of Mrs. Heywood, (Natural Hist. of Cheshire, &c. p. 72. b. 2.) found seventy pints of water in her belly, the omentum consumed, and the peritonæum full five inches thick, in whose duplicature was a large facculus full of schirrous glands, vesiculæ, &c.

appetite declined, her breath grew short, and not long after she died. The upper parts of her body were very much emaciated, and the lower not very greatly swelled. About twelve gallons of water were discharged by a wound made near the navel, of the colour of ale, which by its sparkling seemed to be saltish. A bag was formed of the duplicature of the Peritonæum, which being removed, all the viscera appeared to be sound, except the right kidney, which was flabby, and wasted: the spleen, also, was less than it should be, and stuck so closely to the internal membrane of the Peritonæum, that it could not be separated from thence without much difficulty. More examples of this kind of Dropsy may be seen in Nuck's *Adenographia curiosa*.

S E C T. X. *In the OMENTUM.*

Hist. 34. A poor woman had her belly swelled to such a degree, that she was looked upon to be far gone in a dropsy. Upon dissection, all the viscera appeared to be sound and in their natural state, except the Omentum, which was large and altogether like a glandulous substance. In the  
middle

middle of it was contained fifty-six pints, or seven gallons, of fetid nasty matter. (*f*)

Hist. 35. Christian Seton, subject to an Erysipelas, at thirty-nine, had her menses stopped, and three years after, viz. in July 1727, her belly began to swell, as her legs, also did a month after. By October her belly was so big, as to reach down beyond the middle of her thighs when sitting: her legs and thighs were double their natural thickness, and the upper part of her body was greatly emaciated: she had a perpetual cough, a moist tongue, was thirsty and costive; made little urine, breathed very short, and had water in her belly, which fluctuated. Three gallons of water were let out by tapping, when it stopped. Then she was purged every fourth day, and took alterative medicines; when she passed great quantities of water by stool and urine, and the swelling abated; but in February 1728, by taking cold it increased again. On the second of July, by a large trochar, was taken away eight quarts of mucus and pus, which followed alternately; and on the fourteenth, four

Mucus and  
matter.

(*f*) Fab. Hildan. Obs. 62. cent. 3. See Bonnet's Sepulcr. Anat. p. 443. and Marcell. Donat. de Med. Hist. Mirab. p. 673.

four quarts of purulent matter: she died ten days after. This proceeded from the Omentum, which consisted of two thick coats or laminæ, and contained vesiculæ full of water, mucus, and steatomatous matter, Med. Ess. Eden, vol. 4. p. 428.

## OBSERVATION.

In this account we have not the weight of the tumified Omentum; but allowing it to weigh eighteen pound, there was, in twelve months time, generated one hundred and forty pound of water, mucus, pus, and membranes, in the cavity of this woman's abdomen; besides what was contained in the swelling of her legs and thighs, and also what she parted with during the time of her amendment, when she had large evacuations, both by stool and urine. This was three of the twelve months; so that unless she was a very large woman, in nine months time as much extraneous matter was added to her belly as the whole weight of her body before she fell ill.

S E C T. XI. *In the* MESENTERY.

Hist. 36. A young man was thought to die of a dropsy, which had been two years  
in



in coming. The liver, spleen, and stomach appeared sound; the pancreas fat, and ponderous; but the kidneys on each side were wanting. Their use was supplied by the Mesentery, whose glands were filled with serum. The substance or body of it spread over the greatest part of the abdomen, and weighed eighteen pounds. (*t*)

Hist. 37. In a young woman that died of a dropsy, the Mesentery weighed twenty pounds; and in it were a great number of vesiculæ full of clear water, and covered with a common membrane. This swelling was three years in coming. (*u*)

Hist. 38. A young woman had a tumor on each side of the abdomen; so that many thought she was with child. There was found a two-fold swelling in the Mesentery, one part whereof was hard, and in the other was a collection of water and matter together. (*v*)

Water and  
matter.

## S E C T.

(*t*) N. Tulp. Obs. 32. Lib. 2.

(*u*) Ibid. Obs. 34. See Amb. Parey's Works, b. 23. ch. 36. here it weighed ten pound and a half, and was of a schrophulous nature, some of the vesiculæ being filled with matter like oil, honey, fat, or suet; others with clear water, &c.

(*v*) Ibid. Obs. 33. T. Bonnet. Sepulcr. Anat. p. 413.



S E C T. XII. *In the LIVER.*

Hist. 39. In a woman that died of a Dropsy, the gibbous part of the Liver was entirely wasted, and the coat of it about a quarter of an inch thick, which contained about five gallons of a gross yellowish fluid, in which were many hydatides about the size of goose-berries, and some pieces of matter of as bright a red as vermillion. This began with a pain in that part when she was about fourteen. At first it only came upon her monthly; but at last it was continual. Her belly constantly increased till she died, which was in the twenty-eighth year of her age, having never had her menses in her whole life. The rest of the viscera were all found; there was not the least swelling in any of her limbs; nor the least yellowness in her skin. (*w*)

S E C T. XIII. *In the SPLEEN.*

Hist. 40. In a boy that died dropfical, at nine years of age, the spleen weighed, together with the hydatids contained in one and the same membrane, above three pounds;  
and

(*w*) Cheselden's Anat. p. 202. See Leigh's Natural Hist. of Cheshire, &c. b. 2. p. 71.

and in a man the same author found a Spleen that weighed five pounds and two ounces. (x)

S E C T. XIV. *In the ABDOMEN.*

Hist. 41. One Dorothy Poiane, upon a motion to stool, in September, discharged, per anum, so great a quantity of clear lymph as filled a large vessel, upon which she fainted away; but upon taking some bread, and a glass of sack, recovered, without any ill consequence. She had had, all the summer, a continual and almost intolerable thirst, which she endeavoured to allay by drinking cold water, (y)

Hist. 42. Mrs Dyer, aged thirty years, of a good constitution, was seized with a pain in her belly, like the cholic, which, in time, proved an Ascites. This began in January, and she died in November following. Between the ninth of March and the thirtieth of October, she was tapped nineteen times, and two hundred and fourteen pints and a half of water were taken from her by those several operations. In her belly  
were

Water  
within.

(x) Ibid. p. 159. See Philos. Transf. abrid. vol. 3. p. 85. Bonnet. Med. Sept. Collat. p. 705.

(y) Marcel. Donat. c. 20. l. 4. p. 417.

were found fourteen pints of greenish serum, mixed with a purulent matter, not a little fetid. The intestines were livid, especially the colon, and adhered in many places to the peritonæum. The Omentum was black, and almost consumed; and the gall-bladder was so distended as to tear the liver by its weight, which was ten pounds and twelve ounces, there being no passage to let out the matter it contained. Seven pints of a black liquor, like coffee, were let out of it by incision; which, having stood all night in a basin, let fall about a quart of thick yellow fæces. During this illness she had but little thirst, and voided almost as much urine as she drank. (z)

## OBSERVATION.

From the foregoing numbers it is plain that two hundred and thirty-six pints, or near thirty gallons of water were discharged into the abdomen, in the space of ten months; that is near a pint every twenty-four hours.

Hist. 43. A sea captain was tapped twenty-nine times, in the compass of three hundred

(z) Phil. Trans. abrid. P. 4. vol. 2. p. 85. See Dr. Leigh's Nat. Hist. of Cheshire, b. 2. p. 71.

hundred fifty-eight days, by which operations more than seventy gallons of water were taken from him; so that he filled at the rate of a pint and a half every twenty-four hours. About three weeks before he died, he began to be troubled with violent rheumatic pains, and bled frequently at the nose. The liver in this gentleman was perfectly sound. (*a*)

Hist. 44. T. Bonnet gives us a history of a religious person, who died of this distemper, but lived till the glands of the mesentery and kidneys were all putrified; the liver full of apostumations, and the spleen covered with a tartarous matter like chalk or mortar. (*b*) Pancirolus frequently found both the liver and spleen covered with a white matter, like the white of eggs when hard boiled, which Fuller (*c*) says was the lymph gelatinised, and appeared strange to this author, because the lymphatics were not discovered till a year after his book was printed.

A tartarous matter on the viscera.

Hist.

(*a*) Cheselden's Anat. p. 200.

(*b*) Med. Sept. collat. p. 703. See also Fabr. Hildan. Obs. 44. Cent. 2.

(*c*) Fuller's Pharmac. extempl. under hydropic wine.

Hist. 45. A labouring man about twenty-four years of age, being thirsty, drank a large draught of cold water in the time of harvest; whereupon he was seized with a continual fever, which first turned to a tertian, and then to a quartan ague: at the end of eight months, he died with a great belly, when there was found in the Abdomen above eleven pints of white, well digested, sweet matter. The viscera were all sound, except the spleen and liver, which were schirrhous; nor could any wound or ulcer be found from whence this matter might proceed. (d)

Digested  
matter.

Hist. 46. A young woman, about thirty, fell into an intermitting fever, and a total suppression of her menses: whence a pain and tumor in the right side of her belly, which daily increased till it became bigger and harder than that of a woman in her last month. After a year she was looked upon to be dropfical, her honesty having, till then, been suspected. At the end of fifteen months she was tapped, when there came  
E from

(d) Fabr. Hildan. Obs. 57. Cent. 2. See T. Bonnet's Sepulc. Anat. p. 551. Schenk. Obs. 5. Lib. 3. p. 496. mentions such another from Platerus, where the matter fell from the lungs.



With a  
lump of  
hair,

and teeth.

from her, to the great surprize of those concerned, a pint and a half of well digested, sweet matter. The next day the surgeon took away as much more, when perceiving some hairs, four or five inches long, issue forth with the matter, he endeavoured to pull them away, but could not, the woman complaining that he would draw out a piece of her belly. She died four days after this, when ten quarts of the same matter flowed through the tap-hole. Upon dissection, there was found a lump of hair as big as a half-penny loaf, wrapped up in a fat kind of matter which grew from the right side of the womb about eight inches long; where was also a protuberance as big as a walnut, and in it a perfect dog-tooth, socketed in a bone of a triangular figure, in which, also, another tooth was growing. (*e*)

Fat.

Hist. 47. A strong, hearty man, about forty, was seized with a violent fever, shortness of breath, and convulsions, which soon killed him, the Abdomen being greatly distended. Upon dissection, there was no fat under the skin, the membrana adiposa being like parchment, and the fibres of the  
muscles



muscles were so dry, hard, and tense, that the best knives would scarce touch them. The intestines were very lax and flaccid, and swam, as it were in melted fat, much like thick oil of olives. The liver was large, the gall-bladder larger in proportion, and full of bile; the lungs adhered to the ribs, and were very flabby and black. There were also two polypusses, one in the aorta, and the other in the vena cava. (*f*)

#### OBSERVATION.

This is a very surprizing history, and I believe not to be accounted for by any system of philosophy, which has hitherto been invented. Baglivi would have us believe, that the fat was melted by the convulsive motion of the muscles; but----credat Judæus Apella, non ego.

Hist. 48. A child, about two years old, Chyle. had an inflammation on his lungs; for which being ill treated by an apothecary, he fell into an hectic fever; his belly swelled, and the extreme parts were emaciated even to the degree of a marasmus. He had all along, a brisk, healthful look, and a lovely countenance, without the least tincture of

yellowness, and a good, or rather greedy appetite, to the day of his death. While alive, several pints of chyle, such as is contained in the chyle duct itself, were taken away by tapping; and when dead, the lungs appeared to be found; but there were a great many glands, pretty large and hard, behind the wind-pipe, which made a pressure upon the duct almost in that part where it arrives at the subclavian vein, and had straitened it as if it had been tied with a string. By this means, the chyle could not mix with the blood, but issued in a continual stream into the Abdomen. (g)

Chyle.

Hist. 49. Mr. Saviard, obs. 3, mentions a girl of eighteen, who, in two hundred and forty-six days, viz. from July 2, 1699, to the fourth of March following, had three hundred and six quarts of chyle, or water like milk, with cream swimming on the top of it after standing, taken from her by being tapped twenty-two times. Till the nineteenth operation she neither lost her flesh, nor strength: she eat and drank, had stools, and made water well; but then, by taking a dose of jalap and gamboge, which worked briskly, her fever increased; she became much worse; and by taking  
half

half a drachm of mecoahcan after the twenty-first operation, which had the same effect, she died in a few days. Upon opening the body, the omentum was entirely consumed; the stomach and intestines were vastly distended with wind; the peritonæum, liver, and mesentery, were each of them full of preternatural glands, and the latter was grown to a very great size; at the beginning of the jejunum was a membranous bag full of the same milky liquor; and from hence a fistulous hole and passage, of the bigness of a goose quill, led into the middle of the mesentery: all along the ductus thoracicus were several glands full of the same liquor, one above another, joined together like beads in a necklace.

#### OBSERVATION.

Some part of the time, this young woman filled at the rate of two quarts a day; for she was tapped on the fifteenth of October, and on the twenty-third sixteen quarts were taken from her again: but more than a quart of this milky liquor, every day, passed into the abdomen during the whole two hundred and forty-six days.

Here it is plain, obstructions of the mesentery laid the foundation of this Dropsy; and that in time, all these preternatural glands being formed, the stream of the lymph and chyle being turned, they passed through this fistulous pipe into the cavity of the Abdomen.

Hist. 50. A nun, at fifty-five years of age, never had her menses, by reason of an imperforated hymen. For many years before her death, she complained of a pain in her groin; and at length her belly swelled, and killed her. She had a lively, florid complexion to the very last, and for the most part complained only of a pain above her left ankle; but nothing was there to be seen amiss. When she was opened, the Abdomen was full of urine; the uterus was ulcerated, and almost consumed; the bladder was much in the same condition, with some holes in it; but all the other viscera were found. (*b*)

Hist. 51. In 1567, a woman died of a dropsy at Paris. After death, there was not found any vacuity in the Abdomen where there was not a vesicula, or little bladder. The kidneys, bladder of urine, the womb, stomach,

stomach, intestines, heart, pericardium, liver, and spleen, were all full of them. They contained a citron-coloured water, which kept sweet more than twenty days, and were above eight hundred in number. (*i*)

Hist. 52. A countryman, being ill of a Dropsy, had an abscess formed on the right side of his belly, which was opened by incision, and almost an infinite number of little bladders full of water were taken out of the wound; more than two hundred a day, for many days together, by which means he perfectly recovered. (*k*).

#### OBSERVATION.

This surprizing history is quoted by Nuck in his *Adenographia Curiosa*, p. 125, but not with so much exactness as we might expect from so curious an author. Dr. Allen (*l*) mentions a young sailor, from whom more than eighty such vesiculæ were taken, some of them being larger than an hen's egg; and in the *Philosophical Transactions*,

E 4

tions,

(*i*) D. Sennert. *Prax. Med.* Schenk. *Obf. Med.* 1. 3. p. 413, 414. and Marcel. Donat. p. 688.

(*k*) River. *Op. Med.* p. 582. *Obf.* 15. See such another History in Schenkius, p. 392. *Obf.* 4.

(*l*) *Synopf. Medicin.* vol. 1. p. 341.



tions, (*m*) we meet with a person, who parted with seven or eight thousand of them after the same manner. Schenkius (*n*) observes, very justly, that most men recover from whom such hydatides have been taken by incision.

Water  
with  
them.

Hist. 53. A maiden lady, fifty-two years of age, complained of a hard swelling in the regio hypogastrica on the right side. The belly swelled mightily, the body emaciated very much, and, a few days before she died, her legs began to swell. In the Abdomen were eighteen gallons of a viscous, darkish, humour. The pericardium was thick, and filled with vesiculæ of different magnitudes on both its sides, and the matter contained in them was of different colours and consistencies, being like jelly, white of eggs, gall, honey, and that of true meliceris. The right kidney had a particular sort of Dropsy; two polypusses were in the heart; two pretty large stones in the gall-bladder; and all the rest of the viscera were in their natural state. (*o*)

Hist. 54. A woman complained, about four years together, of an unequal swelling  
of

(*m*) Philos. Transf. No. 370.

(*n*) Obs. 4. p. 395.

(*o*) Philos. Transf. abrid. vol. 4. p. 86.



of her belly, for which she took all sort of medicines, cathartic, diuretic, &c. at last she thought herself with child, and, in time, brought forth a hearty, sound infant; yet her belly was so far from abating upon this, that it daily increased, with great and continual pain. Thus she continued four years more, when her belly measuring three ells about, she departed. There was in the Abdomen two hundred and sixty-four pound or thirty-four gallons of water, included in a bag, which adhered slightly to the peritonæum, sternum, os pubis, and the vertebræ of the loins and kidneys; so that it was no easy thing to know from whence it had its origin. In the right hypochondrium was a tumor, as big as two fists, composed of many glands and hydatides. The rest of the viscera were all sound. (*p*)

In abag.

# S E C T. XV. *In the WOMB.*

Riverius tells us, that he knew a noble lady who voided six or seven pound of thick phlegm

(*p*) A. Nuck. Adenograph. curios. p. 127. See also Fabr. Hildan. Obs. 58. cent. 4. Ruysch Obs. 27. T. Bonnet's Med. Sept. Collat. p. 712, &c. Sepulcr. Anatom. p. 529, 533, 542.

In the cavity.

phlegm in one day's time by the womb (*q*); and says Vesalius (lib. 5. de Corporis humani Fabrica, cap. 9.) dissected a woman, in the cavity of whose womb was one hundred and eighty pound, or more than twenty-two gallons of water, the mouth of it being closed and callous. (*r*)

Hydatides

Hist. 55. Mauritius Cordæus (Comment. in Libr. 1. Hippocr. de Morbis Mulier.) gives a history of a woman who had a Dropsy of the womb, wherein were contained a great number of vesiculæ, full of a citron-coloured water.

Hist. 56. A woman had a Dropsy of the womb. As often as the time of her menses came about, so often six or eight basons full of citron-coloured water, exceeding hot, came from her, through the neck of the womb. Upon this her belly fell (in two days, according to Forestus, (*f*)) and then the menses followed, as when she was well. The water was all the next month in gathering,

(*q*) Oper. Med. p. 390. See Schenk. Obs. 3. l. 4. p. 597.

(*r*) River. ibid. Hoffman's System, vol. 3. p. 160. quotes this history, and calls it sixty Mensuras Augustanas.

(*f*) P. Forest. Obs. p. 240, 654.

thering, and then flowed at the usual time of her menses, as before. She was cured of this disorder, and afterwards bore a live child. (*t*)

Hist. 57. A noble lady, who bore children, though dropfical, had a large quantity of serous humour constantly came away from her after delivery, whereupon her belly always fell; but when she left off breeding, it grew to a prodigious size (*u*), and was, I suppose, the occasion of her death.

Hist. 58. I know a gentlewoman whose belly, when about forty, was grown as big as if she had been with child, and ready to be delivered. After some time, she found that she was indeed with child, and, upon quickening, she had her menses, which she never used to have, during her pregnancy. When these had done flowing, a water began to come from her, and was daily discharged till the time of her delivery. The whole amounted to several gallons; and by this means she was, for some time, freed from her Dropsy; though it returned again, upon her being with child, twice  
more

(*t*) J. Fernel. de Morb. Part. p. 438. See Schenk. Obs. Med. l. 4. p. 596.

(*u*) Dr. Strother's Pharmac. Pract. p. 8.

more in the same manner. Each time she carried her big belly to the full end of her reckoning; but none of the children lived, nor had she any water come from her at the time of her delivery, as is common in healthy women. She is yet (v) alive, but has not bred these four or five years, and her belly has not increased since her last lying in.

Hist. 59. A woman, at the time of her menses, for twelve years together, was seized with convulsions and hysterics. About three years before she died, there was a phlegmon formed in the Womb, which came to suppuration, and brought her into an hectic fever. When dead, the Womb was full of water, together with hydatides, filled with a purulent matter: a great quantity of water was likewise in the abdomen. (w)

Hist. 60. A woman about forty-four years of age, some time after she was married thought herself with child. Her menses stopped, and she could, at pleasure, squeeze a whitish, pale liquor out of her breasts,

(v) So said in 1740.

(w) C. Piso de Col. Serof. Obs. 125. See also Schenk. Obs. Med. l. 4. p. 596.

breasts, which she took for milk. Her belly grew very big, and at the end of nine months she was seized with labour-pains, as she imagined. These symptoms, however, soon went off again, and her belly daily increased. For three years she continually took medicines, without any manner of relief, and then died, being very much emaciated. There was found above two gallons of clear water, included in a transparent membrane on the external tunic or coat of the womb. (x)

In the coats,

Hist. 61. A woman complained of great pain in her belly and loins, which increased so much upon lying down, that she was forced to sit almost upright in bed. Her belly had daily increased for twenty-five years, and at the time of her death was monstrously large. All the viscera were found. In the abdomen were four pints of a very putrid liquor, and a large tumor, which spread itself all over the belly. This was the Womb, which was thought to weigh near forty pound. The fore-part of it was not above an inch thick; but on the sides and back it was near twelve inches.

In the substance or body of it.

The

(x) Philos. Transf. abrid. vol. 3. p. 205. See Bonnet's Sepult. Anat. p. 461, &c.



The substance of it was partly schirrhus, and partly glandulous; and in the middle was a thick putrid matter, of a black colour and very fetid. This woman, at the beginning of this disorder, thought herself with child, and in the third month had a bladder full of water come from her. Upon this, she had a flooding for six or seven months; upon the stopping of which she began to swell, and was thought to die of an Ascites. (*y*)

In a bag,  
whole.

Hist. 62. A gentlewoman, with child, was seized with labour-pains at the end of five months, when there came from her above ten pound of water included in a strong membrane. She went out the remaining part of her time, and brought forth a strong hearty child (*z*). Nine quarts of water came thus from the wife of Fabr. Hildanus at the time of her delivery, without one drop of blood, about half an hour before her real water broke (*a*). She recovered,

(*y*) T. Bonnet's Sepulcr. Anat. p. 460. Fab. Hild. Obs. 49. c. 5. gives a history of one that weighed eighty-seven pound, in which were several kinds of liquids, and hair almost like wool.

(*z*) Fabr. Hildan. Obs. 53. cent. 2.

(*a*) Ibid. Obs. 56. See T. Bonnet's Sepulcr. Anat. p. 459.



covered, without the use of medicines, and this proved the most hearty of any of her children.

Hist. 63. A woman, after suppression of her menses, had, at several times, a substance came from her by pieces, containing many vesiculæ, which were filled with a yellow water and wind: They were as many as would have filled a water bucket: she did well, and afterwards bore children (*b*). By pieces.

Hist. 64. A woman, twenty-seven years of age, died the third day after her delivery. Her belly was swelled to a prodigious size; her superior parts were very much emaciated; and the inferior, feet, legs, and thighs, were as much swelled. These easily retained any impression made upon them by the fingers, and upon the least rubbing discharged so much water, that a great deal of linen was often wet in drying it up. In her belly was almost seventeen gallons of viscid, slimy water, in colour and consistence very much resembling a brown, thick, and roapy syrup. This was included in a thick, strong membrane, as in a bag, which was nothing else but the  
membrane

(*b*) N. Tulp. Obs. 32. lib. 2.

In the  
ovaria,  
left.

membrane of the ovarium covering the ova. It had its origin on the left side, and spread itself all over the intestines to the right. The rest of the viscera were found, and in their natural state (c).

Hist. 65. A woman of fifty, who had been married, but never had a child, found her belly begin to swell about four years before her death. In the abdomen was a heap of bladders, of several sizes, in which were liquors of different colours and consistencies. In some it was brown and thick, with a sediment of the colour of amber; here it was like mucilage of quince seeds; there like the white of eggs; and in other places like starch newly boiled. The largest of these bags weighed about twenty pound, and the least was as big as a walnut. They all proceeded from the left ovary, the right being small, white, and, in a manner, dried up. The liquid contained in these vesiculæ weighed one hundred and twelve pound and they, with the uterus, weighed twenty-five pound more (d).

Hist. 66. A parallel case I once saw in a poor woman, who being thirsty in the time  
of

(c) Philos. Trans. abrid. vol. 4. part 2. p. 113, &c.

(d) Ibid. vol. 3. p. 306.

of harvest, drank a large draught of cold spring water, and was immediately seized with a violent pain in her left side, like the cholic. In a few days her belly began to swell; and when she died, there was found a vast number of vesiculæ, which came from the ovary of that side, and spread quite across the Abdomen to the other, being of as different sizes, and filled with as different liquids, as those in the foregoing history. She had been tapped several times, but with very small relief, the water discharged by this operation being more, or less, according to the size of the vesicle which was opened; but it never, I think, exceeded a quart at one time.

Hist. 67. One Mrs. Brown, about twenty-nine years of age, having had one child, thought herself again pregnant; but finding herself deceived, after twelve months, she entered upon a strict course of physic, as in a Dropsy, but to no purpose. Her belly swelled mostly on the right side; so that the navel was thrust over to the left. At several times she had a great quantity of limpid serum, like the white of eggs, and as insipid, taken from her by the paracentesis. Several buckets full of the same liquid

quid was found lying in the abdomen, whereof some was contained in bladders as big as the stomach, and others in less. Within the greater vesiculæ were other small ones, and all came from the right ovary. The omentum was entirely consumed; the gall-bladder was full of triangular yellow stones; and the other viscera were all found (*e*).

Hair and  
and mat-  
ter in it;

Hist. 68. A poor woman, after lying in, had her belly swelled so as to measure five foot round at the navel. It contained thirty-eight measures of water, and the right testicle, or ovary, was as big as a goose egg, being filled with hair, and a white, oily, purulent matter (*f*).

in both.

Hist. 69. A woman, after a long suppression of her menses, had her belly begin to swell, and did so for nine years before it killed her. The omentum was putrid; the spleen little; the liver pale; and the colon thrust out of its place. In each horn of the Womb was contained about nine pound of water and matter included in a great number of vesiculæ, some of which pro-  
ceeded

(*e*) Philos. Trans. abr. vol. 3. p. 207. See Bonnet's Sepul. Anat. p. 491.

(*f*) Fab. Hildan. Obs. 48. cent. 5.

ceeded from the external coat of the womb itself (g).

# S E C T. XVI. *In the Guts.*

Hist. 70. A lady, about sixty-four years old, had a hard round tumor in the lower region of the belly, with a constant discharge of urine. This was taken for a schirrhous, for which were given emetics, cathartics, diuretics, &c. but without success. One day, having been abroad in the air, upon her return home, she voided two basons full of gross excrements, a little black, and not very fetid; whereupon the swelling disappeared, the urine ceased, and, in a few hours, she was perfectly recovered. A year after this she had an apoplexy, which was carried off by emetics and cathartics. Twelve months, after the tumor shewed itself again, exactly in the same manner, which daily increased for two years, and then she died. Here the cæcum was so dilated, that its membranes were smooth on the outside, and within was three quarts of greyish matter without  
F 2 smell,

*In the cæcum,*

(g) N. Tulp. Obs. 45. Lib. 4. See J. Schenk. Obs. Med. l. 3. p. 414.



smell, and not very thick. All the other viscera very sound (*b*).

And in  
the rec-  
tum.

Hist. 71. A noble lady, having borne two children, had good reason to think herself with child again; but at the end of seven months, her belly being large, and no motion of the child felt, it was then concluded that she had either a mole or a Dropsy. After she had consulted a great number of physicians, and taken all the medicines which they could direct for her, both internally and externally; at length she was seized with a violent pain like that of labour, and, in a short time, expired. The belly being vastly swelled, the matter contained in it was found too thick to be discharged by puncture; but, upon making an incision, there was found at least five pots (Danish measure) of a thick, fizy matter, pale coloured, and a little tinged with red, and a lump, or substance, like a pine apple, or cluster of grapes, filled with the same sort of matter, that adhered to the left side of the Womb. On the right side, also, was a membranous body of the same kind, as big as a man's head, fixed to the bottom of the Womb and os heon. These bodies

(*b*) Philof. Transf. abr. vol. 3. p. 112, 113.

bodies and matter contained about twenty-eight pots of the same measure. Under the uterus lay a membrane, which covered all the rest of the viscera, being joined upwards to the bastard ribs on both sides, in the middle to the peritonæum, and downwards to the os pubis, between the uterus and rectum. This being removed, all the viscera were found, except the cæcum and rectum; the former being as big as a child's arm of three years old above the wrist, and the latter had a tumor on it as big as an egg (*i*).

#### S E C T. XVII. *In the* KIDNEYS.

Hist. 72. A young woman died of a Dropsy; no fault appeared in any of the viscera, except in the left Kidney. This was putrid and filled with a most fetid liquor as black as ink, which doubtless was the origin of this disorder (*k*). Matter.

Hist. 73. One Elizabeth de Bordes had an abscess in her left Kidney, for many years, which did, at length, equal in magnitude, and fill up the whole cavity of the

F 3                      abdomen.

(*i*) Aët. Medic. Hafniens, vol. 1. p. 17, &c. See T. Bonnet's Med. Sept. Collat. p. 729, 730.

(*k*) Etmul. Op. Med. p. 405.

abdomen. The stomach and intestines were forced by it into the cavity of the breast, so that they could contain little or no food. There were seven quarts of pus contained in it, and yet the capsula, or external membrane, was not broken (*l*).

Hist. 74. A gentleman, after a violent fit of exercise, at ball-play, made bloody urine, to a great quantity. After eight years, he was seized with great pain in his Kidneys. Then his belly began to swell, and did so for thirteen years; during which time he frequently voided five or six pints of the same kind of matter that was afterwards found in his body. The peritonæum being removed, there appeared nothing but a large tumor, which spread itself all over the cavity of the abdomen, except where the colon lay upon it, like a girdle. In this tumor was matter of various colours and consistencies; some was yellow, full of little glandular bodies, and rough stones, whereof some were as thick as a man's thumb; some was thick and viscid, like the fæces of oil of olives; others like honey or melted glue; and in the bottom were five or six pounds of coagulated

(*l*) C. Pifo de Col. Seros. Part. 2. p. 130, 193. See also Phillos. Transf. abrid. vol. 3. p. 144.

agulated blood, and stones sticking to the bottom every where. This matter weighed sixty-eight pounds, and the membrane nine; which was nothing else but the Kidney; it being four feet, eight inches round, one way, and three feet, ten inches the other; the right Kidney, and all the other viscera, being perfectly found (*m*).

Hist. 75. Vieussens gives us the history of one Pet. Labry, who died in the hospital of Montpellier, at twenty-five years of age, of a violent pain in his back. The mouth of the ureter was stopped up with a rough stone; and the pelvis of the Kidney was so distended as to contain more than three Urine. pints of urine, the Kidney being whole; but the glands and papillæ so squeezed together, that there was not the least appearance of them (*n*).

### S E C T. XVIII. *In the* BLADDER.

Hist. 76. One Mr. Smith, of Highgate, died of a Dropsy in 1687. His Bladder of urine was as large as a child's head, and a quarter of an inch thick. The ureters were as large as the small guts in children, and

F 4

full

(*m*) Bonnet. Med. Sept. Coll. p. 739. and Sepulc. Anat. p. 485.

(*n*) Nov. Vascor. Hum. Corp. Systema, p. 189.

In vesicu-  
læ, or hy-  
datides.

full of urine, or a ferous matter, which, upon pressure, did easily regurgitate into the kidneys, but would not pass at all into the Bladder. The kidneys were consumed, so as to become like large bags, the pelvis of each being large enough to hold three ounces of water. In the Bladder were twelve cystes, bags, or vesiculæ, of different dimensions, some being as large as a goose egg, and all filled with a limpid serum. The coats of them were some thick, others thin and tender; and they were all of them loose and without adhesion to one another, or to the coats of the Bladder. There was little or no urine in the Bladder; so that it was imagined that this miserable gentleman could only make water when some of these hydatides were broken, by the Bladder's being too much crowded with them. The liver was large and hard; the lungs of a livid colour, and wholly replete with a purulent matter, a stone, as big as that of a cherry, being in one lobe. A fungous substance covered the heart, which was large, and had a polypus in each ventricle (o).

Hist.

(o) Phil. Trans. abrid. vol. 3. p. 148. See T. Bonnet's Sepulcr. Anat. p. 546.



Hist. 77. A country woman had her belly so swelled, that she and all the neighbours thought she was with child of twins. After eleven months she died; when there was found two or three pound of viscid, fœtid humour in the cavity of the abdomen, and between the two coats of the Bladder a large quantity of pus, the exterior coat being lacerated, and the inner perfectly sound. The womb, and all the viscera, were in their natural state. It was thought this disorder came from a kick with a cow (o).

Between  
the coats.

#### S E C T. XIX. *In the* SCROTUM.

Hist. 78. A man was troubled with a Dyspnæa, so that he could not lie down in his bed, but was forced to sit and sleep in a chair. After this, his belly began to swell, and about a month or two before he died, this tumor went entirely away; but his Scrotum swelled to a prodigious size (p).

Hist. 79. A man of forty, being ill of an Ascites, took several medicines for it to little or no purpose. At length, the humour fell so violently upon the Scrotum, that it mortified. By the application of  
proper

(o) T. Bonnet's Med. Sept. Collat. p. 739.

(p) C. Piso de Coll. Scrof. Obs. 55.

proper medicines, it digested, whereby the dropfical humour was discharged; and when it dropped it off, nature covered the testicles with a callous substance; so that he afterwards got children, and enjoyed a good state of health many years (q).

Hydrocele  
or Hernia  
aquosa.

A Dropsy, or watery swelling, in this part is, by most authors, called Hydrocele, (r) or Hernia Aquosa. Histories of it are common in the writings of surgeons.

Hist. 80. A man, after an intermitting fever, had an hernia on the right side which by degrees extended to the testicle. This was reduced, and a truss ordered to be worn; but in a few days he felt darting pains along the spermatic vessels, and a tumor appeared under the groin, which in time came to equal a small melon. This was pierced by a trochar, and a pint and a half of lymph discharged, which sunk the tumor only one half. At last there were three distinct tumors discovered; 1. one in the cystis hernialis, the upper orifice of it having been closed by the pad of the truss; 2. between this and the cremaster muscle in the cellula  
of

(q) Fabr. Hildan. Cent. 1. Obs. 48. Cent. 5. Obs. 76, 77. and Cent. 4. Obs. 66, 67, 68.

(r) From ὕδωρ water, and κήλη a rupture.

of the tunica vaginalis; 3. upon the tunica albuginea, which had been opened by the trochar. The testicle was found, but it was not possible to avoid doing injury to the spermatic vessels, so that he was forced to suffer castration, and so recovered (s).

Hist. 81. One Mr. Heap, schoolmaster, of Manchester, for two years before his death was supposed to labour under an ascites, and an hernia intestinalis; for he had a tumor like a satchel hung betwixt his thighs, so that he could hardly walk. In the space of three weeks, one hundred and twenty pints, or fifteen gallons, of fetid water issued through the coats of the scrotum, which at last mortified, and killed him. The substance of the cutis was found to be very schirrous all over the region of the groin, the membrana adiposa was full seven inches thick, and all the viscera in the cavity of the abdomen were perfectly sound. There were twenty or thirty sacculs of fat, which adhered to the bowels, of the size and shape of pears. During the whole course of his illness, he eat and drank plentifully, had a good digestion, had little or no thirst, made water freely;

freely ; and in short had no other complaint except the swelling (*t*).

### OBSERVATIONS.

1. In the foregoing histories we find Dropsies of the belly, Ascites, confined to almost every part of the abdomen, the rest of the viscera being all found perfectly sound upon dissection. Thus the stomach, omentum, liver, mesentery, womb, kidneys, guts, and bladder, have each of them been the sole cause of these kind of Dropsies ; so little truth is there in the old account of the Ascites, which lays the cause of it always in a fault of the liver or spleen.

2. The Ascites often proceeds from inflammations, and over-heating the blood first, and then suffering it to cool hastily. This is, indeed, the general cause of most distempers ; perhaps, of two thirds of those to which mankind is subject.

3. By Dropsies all the viscera of the abdomen have sometimes been entirely consumed, at others, distended to a monstrous degree. The omentum and liver have become a vast heap of glands ; and a bag  
filled

(*t*) Dr. Leigh's Natural Hist. of Cheshire, &c. b. 2. p. 76.

filled with fetid, nasty matter : the kidneys have been entirely consumed, and their place supplied by the mesentery, which has sometimes been twenty pound weight. All the viscera have been covered with a tartarous, stony substance ; and persons have died of an Ascites, without either thirst or difficulty of urine.

S E C T. XX. *In the Joints of the*  
LIMBS.

Hist. 82. A gentleman had a slight wound in his middle finger, which being ill-treated, by a barber-surgeon, it became painful, when there dropt from it a whole measure of clear water. This flux was attended with such great pain, fever, and loss of strength, that he was brought almost to death's door before he could be cured (*u*).

A surgeon of my acquaintance opened an equal tumor in the middle of a man's thigh, caused by a kick from a horse, from whence there was discharged a large quantity of clear lymph only, without blood or matter.

Hist. 83. In the year 1738, a woman of Bilston, near Wolverhampton (as remarkable for an impostor, in queen Elizabeth's time,

(*u*) Fabr. Hildan. de Hydrath. p. 833.



Hyda-  
tides.

time, as for its toys in ours) had an equal tumor on the outside of her right leg from her ankle to her knee. She looked pale, was between thirty and forty, never had a child, complained of great thirst, said it had been near seven years in coming, but was never painful till lately. It was laid open by incision, and a great number of hydatides lying along the tibia, between the muscles were taken out of it. They were of different sizes, from that of a pea to that of a pigeon's egg; were included in several membranes, and contained a transparent liquor, clear as water. When the outward skin was taken off, it looked in many places like the husk of a grape. The wound being cured, the thirst left her; and she has now better health than formerly.

Hist. 84. A cooper, about forty years of age, had a slight wound near the patella of the right knee; which being too hastily skinned over, he was seized with great pain and inflammation in the part, so that a mortification was much feared. He had also a continual burning fever, and great pain in the head and back, violent thirst, nausea, &c. A fungus had spewed out of the wound as big as a hen's egg, from which  
the

the surgeon immediately discharged a pint and a half of ichor, or clear water. This continued running some few days, and in that time several pints of the same sort of liquor were discharged, whereby the man's cure was at length effected (*v*).

Hist. 85. A young woman, in walking one day, sprained one of her ankles, which was mistaken for a dislocation. By endeavouring to reduce it, so great a flux of humours was brought upon the part, that several pints of water were, in a few days, discharged by the wounds there made; and the upper parts of her body were so emaciated; that there was little more than skin left to cover the bones withal (*w*).

Fabritius Hildanus thought it worth his while to bestow a Treatise upon this kind of Dropsy. He gives it the name of Hydrarthos (*x*), or water of the joints. Paracelsus calls the water of these parts Synovia (*y*),  
from

(*v*) Fab. Hildan. de Ichor. p. 833, 834. and Obs. 97. Cent. 3.

(*w*) Fabr. Hildan. p. 835. More examples of this kind may be seen in this Treatise of Hildanus.

(*x*) From ὕδωρ water, and ἄρθρον a joint of the limbs.

(*y*) This is a technical word, which perhaps the author made from σῶν together, and ovum an egg; or, perhaps,

from the likeness it has to the white of eggs; and from him the French, and many of our English surgeons, now call it Synovia. Mr. Petit (z), in his chapter of the Anchylosis, is very particular in describing the nature of this liquor, and plainly, he says, demonstrates, that the Anchylosis and Dropfy of the joints, must often proceed from the acidity, or sourness, of the synovia, occasioned by the pox, king's evil, &c. which have sometimes dissolved and reduced it to a perfect water.

haps, like the words gas, opodeldock, &c. is not to be derived from any language that I understand.

(z) Treatise of the Diseases of the Bones, Part. 1. Ch. 16.

C H A P. III.

*Observations on the foregoing Histories.*

**T**O deliver matters of fact is the chief business of a faithful historian. The plainer the style, and more simple the expression, the more lasting will be the ideas in the mind of the reader. Long periods, and all the other gaudy ornaments of rhetoric, should here be cautiously avoided, as being not only superfluous, but often prejudicial. Truth never appears so charming and lovely, as when plain and naked. Thus it is with the history of men's actions, and thus it is with the history of diseases, to which our bodies are obnoxious. For this reason I have, in the foregoing histories cautiously avoided every thing that looked like superfluity; but hope I have not thereby rendered the matters of fact obscure. However, if any difficulty should arise, the reader may have recourse to the original for satisfaction, of which I have only given him a short abridgement. For this reason I ra-

The nature of history.

ther chose to give the histories of particular Dropsies from the writings of other men, than from my own experience and observation.

The authors I have quoted are, I think, such whose veracity will not so much as once be suspected by any serious person ; and, therefore, the foregoing histories being allowed to be true, from thence may be deduced these following propositions, which will demonstrate to us the nature of this terrible disease, and will be a sure foundation, whereon, to fix our prognostics, and method of cure.

All the vessels of a human body are capable of a vast distention. The size of men is altogether accidental, nature having appointed no certain standard in this case ; but only set some certain limits beyond which it shall not pass. While the force which drives about the fluids continues uniform, and so increases, each part of the body either does, or may receive an equal addition or augmentation, till the whole comes to the bulk which nature designed : but when, by any accident, this force becomes unequal, i. e. quicker in some, and slower in other parts, the size or shape of  
the



the body must soon be altered. From a circulation thus unequally carried on for a considerable time together, a distention first, and then a rupture of the vessels, must necessarily follow. Hence tumors of all kinds, whether phlegmonic, scrophulous, or dropfical, may very easily be accounted for. The first of these is from an unequal circulation of the blood in the veins and arteries; the second from that of the glandulous juices; and the last from that of the lymph, as will by and by, I hope, more plainly be made appear.

I.  
Different  
sorts of  
tumors  
from  
whence.

A Dropsy, or a collection of water, and watery humours, may be formed in any part of a human body, even in the bones themselves. Dropsies, however, are most frequently to be met with in the larger cavities, viz. in the head, breast and belly. The antients, not much used to the dissection of human bodies, were of opinion, that all Dropsies did originally proceed from the spleen, or liver; but the bare perusal of the foregoing histories, will sufficiently convince any person of the falsity of this hypothesis.

II.  
Dropsies  
in every  
part of  
the hu-  
man bo-  
dy.

All Dropsies proceed from a fault in some one part at the beginning; but in time,

III.  
Hard to  
find where  
an ascites  
begins.

many other, both contiguous, and at a distance, may be, and often are, sufferers ; so that upon the dissection of a dead body, it is very difficult, and sometimes impossible, to find out exactly from which part the water or dropical humour had its origin. The great Dr. Friend (*b*) is of opinion, that when the particular part cannot exactly be discovered from whence a Dropsy of the abdomen has its origin, it always comes from the peritonæum, or omentum ; if the rest of the viscera are sound, as they very frequently are ; because in an Ascites the cawl is generally corroded, wasted, or putrified ; and as to the peritonæum, the glands of it are usually affected in this case : but this, though very often, is not always the case.

A violent and constant thirst, shortness of breath, and the making too small a quantity of urine, are generally taken for infallible tokens of, and constant attendants upon, a Dropsy ; but it is possible, a person may have this disorder in the most violent manner imaginable, and yet be entirely free from all these complaints. From hence it necessarily follows,

(*b*) Hist. of Physic, vol. I. p. 161. See also T. Bonnet's Med. Sept. Coll. p. 727.

follows, that there is no symptom essential to a Dropsy, but a swelling of the part affected; all the other symptoms here mentioned coming on as the disease increases. C. Piso therefore very justly observes, that whosoever is conversant in the dissections of hydropic bodies, will find a tumor to be the most frequent, if not the only, cause of an Ascites: but these kind of swellings often come on slowly, and the lymphatics are frequently burst before any discovery is made of the disorder. Mr. Wiseman (c) mentions a person who had a prolapsus ani, for which he was consulted. Upon observing the folded sheet which lay under him to be wet through, as if soaked in water, he thought the man to be dropfical, though neither he, nor any of his friends, believed it. Three quarters of a year after he died of an apoplexy, when somewhat more than a quart of water was found in the cavity of the abdomen.

IV.  
Swelling  
of the  
part the  
only  
symptom  
of a  
Dropsy.

The foregoing proposition holds true in the Hydrocephalus, or Dropsy of the head. An apoplexy, palsy, epilepsy, gutta serena, convulsions, and a total deprivation or loss of sense, have sometimes been caused by

V.  
Even in  
the head.

G 3

water

(c) B. 3. ch. 2.

water contained in the head; and yet at other times, when the whole substance of the brain by the water has been squeezed so as to become like a membrane, the senses have continued good and perfect (*d*). No system of philosophy hitherto invented is able, I suppose, to account for these seeming contrarieties.

Nature of  
the brain  
unknown.

There are more histories of Dropsies, and other disorders of the head, than of any other part of the body; which serve rather to confound, than assist us in discovering the nature of the brain. Wounds in this part are sometimes mortal, at others not. The substance of the brain is uniform, but of so soft and watry a nature, that if twenty-five grains of it be exposed to the air, twenty-four of them will exhale and only one grain of solid substance remain. From this moist part the nerves apparently have their origin; but how, or by what means, sensation is performed, we are entirely ignorant. In the year 1736, I saw a female embryo taken from the mother, which wanted but a fortnight of its full time. Whilst it was in the womb it was more brisk and lively than most children, but so soon as it came into the air expired.

(*d*) See chap. 2. sect. 1.

expired. The whole substance of the brain and skull were wanting, the latter appearing as if had been cut off just above the eyes, and so round by the ears and atlas, so that I could thrust my finger into the hollow of the vertebræ where the medulla spinalis lies. It is certain some kind of circulation must be carried on in these vessels; but the animal spirits could never yet be seen, not even by the largest microscopes. In many kinds of brutes the brain is larger, more fine and beautiful, and the nerves more capacious, than in a human body; and yet the latter, with all these seeming imperfections, performs much more surprizing things than the former. If, then, we are ignorant of the nature and use of the brain in general, how ridiculous must it be for any one to pretend to fix the soul, or seat of thought and understanding, in this or that particular part of it. Though Des Cartes was so fond of the glandula pinealis, and ascribed such prodigious qualities to it, it has nothing in it different from any other part of the brain; nay, unhappily for this gentleman's hypothesis, it seems to be a part less necessary to life than several others: for there was a child born at Paris, which lived four days,



and another at Leyden, which lived to be a year old, without a conarium, or glandula pinealis (*e*); but of this, perhaps, more than enough.

A dyspnæa, or shortness of breath, is a constant symptom of a Dropsy in the breast. If this does not appear in the beginning of this disorder, yet when the weight of water comes to press upon the diaphragm, it must of necessity follow. This kind of Dropsy, as many others, is hard to be discovered, till the life of the patient is in the utmost danger. For this reason, many persons have laid down what they call certain rules whereby we may be apprized of this disorder. One gentleman says, we may almost infallibly know a Dropsy of the breast from other disorders there, by the person's breathing better when he lies, than when he is in an erect posture (*f*); but the great Riverius (*g*) seems to establish the direct contrary for a truth, assuring us, that when a person is seized with a shortness of breath upon his falling asleep, which wakes him,

increases

VI.  
No general pre-  
cepts to  
be given  
in physic.

(*e*) Philos. Trans. abridg. vol. 3. p. 23. See T. Bonnet's Med. Sept. Collat. p. 24, 25.

(*f*) Philos. Trans. abrid. vol. 3. p. 77.

(*g*) Op. Med. p. 255.











increases as the night does, and grows gradually better as the day comes on; this may be taken for almost an infallible sign of a Dropsy in the breast. Hence we may learn how cautious we ought to be in laying down general rules or precepts in physic. There is no certain conclusion to be drawn from the most exact observations that can be made in one case or two in physic; for from the foregoing histories (*b*) it is evident, both these observations might very justly have been made, but that neither of them should have been laid down as a general rule; for though the nobleman was always better upon his lying down in bed, yet the old gentleman in the next case was never easy in that posture. I know a certain baronet, who, in his youth, was frequently troubled with a nervous asthma; for which reason he was strictly enjoined, by one that was lately at the head of his profession, religiously to abstain from opium, and all preparations of it, though his circumstances might seem to require it ever so much. This general rule had certainly cost him his life, in a fracture of one of his legs, had I  
not

(*b*) Hist. 18, and 19,

not frequently given it him, though contrary to his exprefs commands.

## VII.

An Ascites and gravitation not to be distinguished at the beginning.

The Ascites and Gravitation are not to be distinguished from one another in the beginning, by any marks or criteria hitherto laid down by physicians. Etmuller (*i*), being sensible of the great advantage a discovery of this sort would be to the fair-sex, has given us eight observations to guide us in these cases. 1st, In Gravitation, he says the colour is fresh and lively; but dull and heavy in a Dropsy. 2. In Gravitation the swelling of the belly is more towards the breast, but in a Dropsy towards the os pubis. 3. The water in a Dropsy may be discovered by pressing upon the belly with our hands. 4. The sprightliness of the eyes is entirely lost in a Dropsy. 5. The urine is high coloured, and but little in quantity. 6. The weight of the water may be perceived. 7. The thirst is great in a Dropsy, and upon moving the body, especially in bed, the motion of the water may sometimes be perceived. 8. The menses flow regularly in a Dropsy, but cease upon a Gravitation. When a Dropsy has continued long, the lymphatics are burst, and the quantity of water is become

(i) Op. Med. p.

become large. We must allow, that many of these symptoms will appear; but no one, nor all of them together, is, or can be, of any service at the beginning of this disorder. The last observation seems the most likely to help us; but it is not infallible: for some women have their menses all the time of their being with child, and others have laboured under a Dropsy during the time of their pregnancy (*k*). Till, then, some more exact observations have been made, I think we may look upon it as one of the desiderata in the art of healing, to distinguish a Dropsy from Gravitation at the first attack. A touch by the hand of a person used to the practice of midwifry, according to Hippocrates (*l*), will soonest, and with the greatest certainty, distinguish betwixt these two cases. Immediately after conception, the os uteri internum contracts; as the uterus increases, it shuts very close, so as not to be felt, and so continues for seven or eight months during the time of pregnancy. For the two or three first months after conception, the uterus continues small, is loose and pendulous; so that

it

(*k*) See Schenkus's Obs. 15. lib. 4. p. 551.

(*l*) De Natura Muliebri, p. 576.

it requires the utmost nicety to determine the case at this time ; but afterwards it encreases in bulk, and becomes more like a fixed, smooth, and solid body. In the last month, the head of the fœtus turns downwards in order for delivery, and may very easily be felt. Soon after this, the os uteri internum opens again by degrees, till it becomes wide enough for the child and placenta to pass through ; then the waters flow, and the birth is at hand. The breasts also in this case, after a few months, become round, hard, and knotted, and afterwards have milk in them ; but in a Dropsy, they always continue soft, and at length, as the body emaciates, become more and more flabby, till at length they hang like a loose piece of skin, when the body is much emaciated, and the juices of these glands quite exhausted.

VIII.  
Women  
more sub-  
ject to  
some sort  
of Drop-  
sies than  
men.

In the  
parts of  
genera-  
tion.

The parts belonging to generation are more frequently the seat of original Dropsies in women, than men. In the former, not only the tubæ fallopianæ and cornua uteri, but even the womb itself, are often the original seat of this disorder. In the latter the scrotum and testicles very rarely fill with water, unless the humour drops from

from some of the viscera upon this, as the most depending part. It is not easy to conceive where the water must be lodged in such women as have had it discharged monthly (*m*), or after a lying-in (*n*). Dr. Strother supposes, in the latter case, that it must be contained in and discharged by the tubæ fallopianæ, because he could find out no other passage. Granting this should be so, yet I think it is not possible to conceive how water should be discharged periodically this way, since the mouths of these tubes must, one would think, be constantly opened whenever any water pressed against them; but the pressure being constant by the supposition, and there being no valves to these tubes, the water must continually be dropping.

Women are also more subject to a Dropsy of the peritonæum than men. The four histories above belong to the fair-sex only, and it is very rare to meet with any such in the other. Whether this be owing to the fibres of their bodies in general being more soft and weak than those of the male sex; to the greater quantity of fluids wherewith they

IX.

In the peritonæum.

(*m*) Hist. 56.(*n*) Hist. 57.



they abound ; or to any particular formation of this part, I shall leave the learned to determine. This membrane sometimes thickens, when water lies upon it ; but whether it does so also during the time of gravitation, I am not certain : however, it is manifest, that in child-bearing women it must be subject to very great dilatation and contraction ; on which account, perhaps, the humours may be disposed to fall upon it more frequently in such kind of women than any other persons.

X.  
Different  
liquids in  
the Ascites.

The liquid contained in the abdomen of a person that labours under an Ascites is not always the same. Sometimes it has been clear, sweet, salt, and sour ; at others, like cream, jelly, gall, honey, chocolate, white of eggs, ale, a brown, thick, roapy syrup, and water wherein raw flesh has been washed. Fat, chyle, and pus, or matter, have also been here found in large quantities ; so that it is no wonder if gravitation in women, or fat in men, have sometimes been mistaken by the best physicians for a Dropsy, there being no possible way of knowing what is contained in the belly of ascitical persons, till we behold it with our eyes. Of the former kind I have already given a sufficient  
number

Fat mistaken for  
a Dropsy.

number of histories; of the latter, this one may be enough. Sir F. L. was swelled mightily in his legs, belly, and stomach up to his very throat, so as to endanger suffocation, and at length he died. His physicians had all-along treated him as in a Dropsy, with cathartic, diuretic, &c. medicines. The corpse being exceeding large, pails were provided to receive the water, which was to be let out of his belly; but upon making the puncture, there only issued out a gush of wind. He was a person of a great appetite, and fed prodigiously, so that he died of a corpulentia reimia, there being six inches and a half of fat lying upon the peritonæum (o).

Many dropfies are absolutely incurable, from the nature of the part whence they have their origin. When water is lodged in the ventricles of the brain, or when the substance of the brain is distended with it, by what means can it be discharged, without the death of the patient? In the Hydrops pectoris, or Dropsy of the breast, when the water is contained in a bag, or when  
the

XI.  
Some  
Dropfies  
absolutely  
incurable.

(o) Philos. Trans. abrid. vol. 3. p. 21, 22. See also T. Bonnet's Med. Sept. Collat. p. 703, and his Sepulcr. Anatom. p. 552.

the pericardium is distended with it, how is it possible to make an incision, without doing injury to some of 'those parts which are more immediately' necessary to life? Hydatides have sometimes been taken out of the abdomen in great numbers, and by this means the party has been recovered; but when these proceed from the stomach, intestines, mesentery, heart, or pericardium, what hand shall be found nice enough to separate them; or who can go exactly to them, without doing injury to some of the more noble parts, and so destroying life. Avenzoar, Riverius, Hildanus (*p*), and many others, are of opinion, that the womb may be cut out of the body with safety. If so, Dropsies which proceed from thence might, perhaps, meet with a speedy cure; but as I never heard of any woman that was relieved by this method, so I am apt to think it would be no easy matter to persuade the ladies of our nation, when ill of this disorder, to undergo the operation.

XII.  
Galloping  
Dropsies.

As some Dropsies are very slow in their attacks, so others seize us with as great violence. In the foregoing histories we meet with some persons that have laboured  
under

(*p*) Hildani op. p. 901.

under this disorder twenty-five or thirty years together, and others that have been destroyed by it in less than one. As the former may properly enough be called chronic Dropsies; so the latter may deserve the name of acute, or galloping. It is really surprising to find what vast quantities of liquids have in a short time been taken from some persons in this disorder. Who would think any person could have his belly fill at the rate of a pint a day for three quarters of a year together, and yet have little or no thirst, and make as much water as he drank (*q*) during the whole space of time? or that more than a hoghead of extravasated lymph should, in less than twelve months be taken out of a man's belly (*r*), and yet life continue?

Bleeding at the nose is generally a sure sign of death in an Ascites. This observation I have often found true in my attendance upon those who have died of this distemper; nor do I remember to have read of more than one who recovered when this ill symptom appeared (*s*). This  
H hæmorrhage,

XIII.  
Bleeding  
at the  
nose a  
mortal  
symptom.

(*q*) Hist. 42.

(*r*) Hist. 43.

(*s*) See Mang. Biblioth. vol. p. 384.

hæmorrhage, I suppose, must come from a putrid fever, caused by the contents of the abdomen being steeped in the extravasated lymph, which by the heat of the body at length becomes of a corrosive alkalious nature. Before this happens, we frequently see the tongue very red, dry and parched.

XIV.  
Every  
part of  
the hu-  
man body  
may be  
altered in  
a Dropsy.

In chronical dropfies, 'not only the liquids, but even the solids, of a human body are sometimes altered. As the lower parts swell, the upper generally fall away; so that at last little more is left than skin and bones on the arms, face, neck, and breasts. The muscles of the abdomen have been so extenuated as to become almost invisible; sacks, bags, and membranes, have been formed in different parts; the omentum, kidneys, &c. have almost entirely been consumed, and the bones themselves have sometimes been so far affected as to become vastly large, and different from what they are in a natural state; nay, the spleen has almost been petrified, at least, covered with a tartarous matter, which made it somewhat resemble stone. This history, I think, deserves our admiration



admiration equally with those of Thuanus (1), where two women, when with child, had the uterus filled with such a substance, and the fætus covered with it. A thing which this author was afraid posterity would hardly believe.

(1) Lib. 76.

## C H A P. IV.

*Of the Cause of a Dropsy.*

HAVING already shewed what vast quantities of different sorts of liquids have been collected together in several parts of the human body, our next business will be to explain by what ways such collections may be made, or, in other words, to shew from whence a Dropsy proceeds.

Two sorts  
of causes.

There are two sorts of causes here to be considered: 1st, the causa proxima, or immediate cause of a Dropsy; which must be some fault either in the solids or fluids of a human body, or both together: 2d, the causa remota, or what the logicians call the causa sine qua non; which must be every thing that occasions a disorder in one or both these parts.

Lympha-  
tics when  
first dis-  
covered.

The veins, arteries, and nerves, were parts of a human body well known to the ancients. About the middle of the last century, Thomas Bartholine (*u*), or our country-

(*u*) T. Barthol. Anat. Corp. human.

countryman, Dr. Jollif (*v*), discovered another sort of vessels very different from any of these above-named. From the transparent liquor which they contained, both these gentlemen gave them the name of lymphaducts, or lymphatics. Neither of these authors was, however, able fully to explain the nature of this their great discovery. This, as often happens to new inventions, was a work left for another; and indeed, A. Nuck almost brought it to perfection. This gentleman, in his *Adenographia Curiosa*, has demonstrated, that there is a circulation carried on in these lymphatics analogous to that of the blood; and that consequently there must be two sorts of them, like the veins and arteries; the one to carry the lymph from the blood to the several parts of the body, and the other to convey it back again. In another work (*w*) he has also proved, that these lymphatics are not only bestowed upon some particular parts of the body, as their first discoverers imagined, but that they are dispersed all over it; and

H 3

that

(*v*) Wharton's *Adenograph*. p. 89. See Dr. Plot's *Hist. of Oxfordshire*, ch. 9. sect. 212.

(*w*) *Exper. Chirurg.* p. 94.

that they go to the very ends of the toes and fingers.

Lymph,  
what,

The lymph, or liquid which circulates in them, is composed of water, salt, some spirituous and other kind of particles so very minute, that their nature has not hitherto been discovered. This is the grand fountain from whence all the liquid secretions of our body are supplied. The urine, spittle, sweat, serum of the blood, whether venal, or arterial, have from hence their origin, and therefore any alteration in this, must occasion a change in some one, or all the other juices of a human body.

Their  
coats,

Mr. de Bills (\*) assures us, that these vessels consist of two coats; betwixt which are innumerable very small fine filaments, resembling the moss of trees; but Nuck and Ruysch could never meet with any such thing, and therefore we may conclude that it is only imaginary. However, it is certain, that one kind of them has valves, like the veins, by Nuck called Semilunares; and it is probable the other, like the arteries, may have none. Their coat is not every where of the same thickness, but becomes stronger the nearer they approach to the ductus thoracicus,

Valves,

(\*) Philos. Transf. abrid. vol. 3. p. 262.

cicus, sacculus chyloferus, and subclavian vein, for the lymphatics all terminate here, or in the large veins according to Cheselden. To the naked eye this coat appears pellucid, even and thin, but by the microscope it seems to be composed of several globuli of different sizes, hanging by, or joined to one another. Mr. Cheselden says, that in a natural state, or if filled with air or water, they appear as cylindrical as the veins; but that in a morbid state, or if filled with a heavy body, as mercury, they then assume the form above-mentioned, because the valves do not equally dilate with the other parts of them (y).

Some make the nerves, some the glands, some the membranes, and some the tendinous membranes of the muscles, to be the origin of the lymphatics; but it is highly probable that they rise invisibly from the sides or extremities of the arteries all over the body, and end in the veins (z); for by blowing air into the splenic and emulgent arteries, these vessels have risen by degrees, so as to become visible on every part of the

Origin.

H 4                      spleen

(y) Cheseld. Anat. p. 199.

(z) See Vieussien's Nov. Vascor. Hum. Corp. Systema, p. 107. & illius Neurograph. c. 17.



spleen and kidneys. Mr. Cowper also assures us, that if water be injected by the arteries, while part of the blood remains in its vessels, we shall see the lymphatics distended with a bloody water : and Mr. Hales (*a*) caused an universal Dropsy in a dog by injecting warm water into him ; the water oozing through the small orifices of the vessels that are not large enough to receive the red particles of the blood. No wonder, then, if in a violent ebullition of the blood, as it sometimes happens, part of it should be found in these vessels, as indeed it always is in inflammations.

The lymphatics sometimes swell to a great size, and are filled with liquids of various colours and consistencies ; but for the most part with a clear transparent water. The valves not giving way to the same force as the other parts of these vessels do, is, as was just now observed, the reason why they seem to be composed of different knots or bags, and the blood and other juices mixing with the lymph, and by the heat of the body digesting with it, gives those several colours and consistencies, which have so often

Hyda-  
rides.

(*a*) Hæmast. p. 116.

often been found in the abdomen of those that have died, or been tapped for an Ascites (*b*).

Bellini, according to his odd way of philosophy, endeavours to explain in another manner the nature of these hydatides, and to shew what causes may produce them: but the whole is such a strange confused parcel of stuff, that I shall only give my reader the trouble of seeing where he may find it (*c*) if he thinks proper.

In rotten sheep these hydatides, or bladders of water, are often found as big as walnuts upon uterus, omentum, lungs, &c. as is well known to every butcher. In human bodies, such vesiculæ or hydatides have been taken out of the neck, as big as nuts, sixty at a time (*d*); they have been voided by the womb (*e*), by stool (*f*), and by urine (*g*). They have also frequently been found on the kidneys and almost every other of the viscera

Visible to  
the naked  
eye.

(*b*) See Vieussens as above, p. 110.

(*c*) De Urinis & Pulribus, p. 172.

(*d*) Philos. Transf. abrid. vol. 4. p. 24. part 2.

(*e*) N. Tulp. Obs. 32. lib. 3.

(*f*) Philos. Transf. abrid. ibid. p. 98. See River. Obs. cent. 3. and obs. 48. cent. 4.

(*g*) Philos. Transf. abrid. p. 99. Hist. 76. above,

viscera of the abdomen, as is evident from the foregoing histories.

Use. Anatomists are of opinion that the use of the lymphatics is principally for conveying a diluting liquor to the chyle, from the various cavities, and surfaces of the body. \* \*

\* \* \* \* \*

Hence they say those of the lower parts of the body empty themselves into the receptaculum chyli, as those of the upper parts do into the ductus thoracicus and subclavian vein.

Experiments.

If the jugulars of a dog be tied, so as to prevent the blood's circulation through them, he will shed abundance of tears, the saliva will run as fast from him, as if a salivation was raised by mercury, and a serous matter will ooze out betwixt the integuments of the head and the interstices of the muscles of the neck (*b*).

If the vena cava be tied close a little above the diaphragm, the abdomen will fill with water as in an Ascites, the animal will soon grow weak and faint, and in a short time

(*b*) Nuck's Sialograph. Lower de Corde, p. 112, 113. Bonnet's Sepulc. Anat. p. 366. Friend's Hist. Physic, vol. 2. p. 158.

time expire (*i*). If the veins of the kidneys be tied, and a thin liquor injected into the arteries, it will pass off by the ureters into the bladder like urine.

Whoever considers attentively these experiments, and the foregoing histories, will not want any other arguments, I presume, to convince him, that neither the veins, arteries, or nerves, can possibly be the conduits through which such large quantities of water are conveyed to the several parts of a human body. The lymphatics then must be the vessels which alone can discharge so much liquid in so short a time. These, as they are placed in every part of the body from head to toe, are sufficient to account for all the surprising phænomena above related; especially if we consider at the same time what different kinds of liquids, upon a distention of these vessels, may be squeezed out of the capillary veins, arteries, and several sorts of glands contiguous to the part affected. It is no wonder then to meet with a galloping Dropsy sometimes, where the afflicted fill with water at the rate of a pint

A fault in the lymphatics the causa proxima of all Dropsies.

(*i*) Lower de Corde p. 110, &c. See T. Bonnet, ut supra, p. 423.

pint a day or more ; nor to find the upper parts of dropfical persons, fo much funk after ftrong purges, where the lymphatics are broken. A gentleman, who had not laboured under this diforder more than three weeks or a month, took two dofes of gutta gamba by my advice within three days of one another. Thefe did not at all abate the tumor of the abdomen, but they made fo great an evacuation both by ftool and urine, that the mufcles of his arms immediately became flaccid, the fkin of his upper parts hung loofe like a bag, and in a few weeks more he expired.

Objection. There is one kind of veffels in a human body, not yet mentioned, from whence an objection may poffibly be raifed againft the foregoing doctrine; I mean the conglomerate glands. The Hydrarthros, or Dropfy of the joints, feems to have its origin from hence, or from the wounded nerves, tendons, or perioftium. It is evident, that in all the larger joints of the body efpecially, there are certain glands there placed, which feparate a liquor for lubricating the parts that are contiguous, and for keeping them from wearing by their conftant motion and attrition.



trition (*k*). The excretory ducts of these glands hang loose like rags or pieces of fringe within the articulation, and sometimes discharge large quantities of a mucilaginous liquor, as is evident from the foregoing histories; but whether this liquor is discharged from these excretory ducts only, or some of the lymphatics which may possibly help to compose the body of these glands, is not yet, nor perhaps ever may be, determined; the best glasses hitherto invented, are not sufficient perfectly to inform us of the nature of these kind of bodies; or whether there is such a thing as an anastomosis between the veins and arteries. As then, by parity of reason, we conclude there are lymphatics in several parts of the body, where the eye has not yet been able to discover them: so, till we are better informed of the nature of these glands, I think we may conclude, that the greatest part of those fluids which are deposited sometimes upon the joints, must come from the lymphatics; and that the glands here and in almost every other part of the body, may probably make an addition to the quantity, by the fluid which

answered.

(*k*) See Mr. Petit's Treatise of the Bones, P. I. ch. 16. Mr. Monro's Anatomy of Human Bones, &c.

which they separate from the whole mass of blood, as we observed before, and had been long ago by Fabritius Hildanus.

Three  
ways, 1st,  
by dilata-  
tion:

These lymphatics then may be the cause of a Dropsy three ways; viz. 1st, By dilatation. All the fibres of an animal body are elastic, and consequently capable of great dilatation (1) without injury. In large tumors of different sorts, and in women that bear children, every day shews us how vastly the skin and membranes may be distended, and in a short time return to themselves again. The young Spaniard, mentioned by Baglivi and Tulpius, could at his pleasure draw the skin of his neck to his mouth and nose, and cover his whole face with that which he drew from his shoulder: hence the hydrops faccatus, and that from hydatides, will easily be accounted for. 2dly, By

2d, by  
transfuda-  
tion:

what the Greeks call διαπύδνσις, or transfusion. It is possible when the lymphatics come to be pretty far distended, that either at their junctures or anastomoses, at their valves if we suppose them to consist of several vesiculæ, or else at their extremities, a sort of dew or vapour may sometimes be discharged, which may at length by condensa-  
tion

(1) Obs. 1. ch. 3.

tion become a body, or mass of water : This water may at first be returned into the mass of blood again, by some vessels not hitherto discovered ; for Dr. Musgrave injected three pound and a quarter of warm water into the breast of a grey-hound bitch, which was all carried off thus without any visible evacuation (*m*) ; but when by heat of the part it has acquired a lentor, it must lodge upon the part and bring on a Dropsy. May we not from hence give an account of those kind of Dropsies which come on slowly and are many years in forming ? 3dly, By rupture. A slip, a fall, or lifting up a great weight, has at once brought on a Dropsy without a previous disorder. Every thing therefore that can occasion a breach of the lymphatics, must equally occasion a Dropsy with the things here named. This is doubtless the most frequent and general cause of Dropsies, which consequently must be quicker or slower, and more or less dangerous, according to the number of vessels wounded, and the part to which they belong.

3dly, By  
rupture.

(*m*) Philos. Transf. abrid. vol. 3. p. 78. This way of filling any part of the body is what Mr. Garengeot calls infiltration.

belong. This kind of filling is called effusion.

Obstructions in  
veins and  
arteries  
cause  
Dropsies.

From what has already been said, it is easy to conceive how obstructions formed in the blood-vessels may bring on a Dropsy. When the veins are obstructed, the blood being constantly thrust forward by the arteries, and not received fast enough by the veins, must quicken the circulation of the lymph, and consequently in time a distention and rupture of its vessels must follow. The same thing will likewise happen, if the arteries are obstructed. Whenever then the venal or arterial blood becomes too thick and fizy, or too thin and aqueous, the lymph will exceed in quantity, and the æquilibrium not being restored, part of it must in time be discharged upon this or that part of the and there form a Dropsy.

Blood too  
thick in  
an Ascites.

In an Ascites, the venal blood is always said to be too thin; but I am both from reason and experience convinced of the contrary. Could we take away blood in this distemper, without injury to our reputation, we should almost constantly find it thick and fizy. Willis and Friend were both of this opinion, and the latter of these authors



thors (*n*) says, that it proceeds from an obstruction of the lungs, which are not able to give a due comminution to the blood, they having been frequently found obstructed in such as have died dropfical. This, I own, is sometimes the case; but from the former part of this discourse it is evident, that this thickness of the venal blood may arise from several other causes. May we not from the thickness of the blood in this distemper, assign a sufficient cause for the dryness of the skin in dropfical persons, or give a reason why such persons seldom sweat of themselves, or can be made to do so by medicines?

By this time I suppose it is evident, that the matter contained in a dropfical tumor must at first be clear, or at most tinged with a little blood, or the juice of some particular gland. Of this colour we frequently find it; but when it has been long out of the vessels of circulation, when some evacuations have been stopped, and others too much increased, and when many of the parts adjacent are become putrid; it is no wonder that it should so often differ in colour, smell, taste, and consistency. In a

Different  
liquids in  
an Ascites  
whence.

I

Dropfy



Dropfy that came from a fall off a horfe, the liquid difcharged by the trochar was at firft like coffee, and at laft like blood. Barbet found it in a poor woman to be 1ft, Thin and fluid ; 2d, Gelatinous ; 3d, Tough ; 4th, Hard, like the fubftance of fteatoma. When the ureters have long been obftructed, it is frequently like urine, both in fmell and tafte. Of the cleareft fort of lymph, Mr. Boyle (o) muft only be underftood when he fays, that the fluid which diftends the abdomen in a Dropfy had been frequently found by him, to be of a different nature from either water or urine, for it would keep long without putrifying ; and upon evaporation over a gentle fire when fresh, it would firft grow roapy, then fizy, and at the laft gelatinous. Five pints of water were taken from a gentlewoman (p) who became dropfical after a mifcarriage. At firft it was yellow and greenifh, and then like the water wherein raw flefh had been wafhed. After it had flood together all night, it appeared to be nothing elfe but blood, fuch as comes from the veins ; for there was a large fibrous craf-

famentum

(o) Boyle's Works, abridged by Shaw, vol. 1. p. 33.

(p) M. Lifter de Hydrope, p. 32, &c.

samentum at the bottom of the vessel, and what swam at the top was like serum, without any stinking or corrupted smell.

Having thus shewn what is the immediate cause of a Dropsy, it is no hard matter to conceive how every thing that contributes to the forming obstructions in the blood-vessels or glands, to the causing too much, or too sily lymph, must be a causa sine qua non, or secondary cause, of a Dropsy.

The causa secunda.

Very few persons, since Hippocrates, have done more towards the curing of diseases than our countryman Dr. Sydenham. Mr. Shaw, however, in his spurious (q) edition of Boerhaave's Chemistry, very boldly affirms, that he was entirely ignorant both of chymistry and anatomy: that, after the death of many thousands, chance alone directed him to the use of spirits of vitriol, in the small-pox, and of spirits of hartshorn for convulsions in young children. This is a heavy charge indeed, if true, and should not have been asserted by any man, especially by any one of this nation, without the strongest and clearest evidence. That the doctor, like other men, was subject to mis-

Different accounts of Dropsies. Dr. Sydenham's.

Dr. Sydenham's  
account  
errone-  
ous.

takes, I allow, and he himself ingenuously confesses it ; but that he was so ignorant of these two arts, which are so very necessary to the composing a good and great physician, I can by no means at present believe : be this as it will, I am certain he did not perfectly understand the nature of a Dropsy, and that his chapter upon this disease has done as much hurt to mankind, as some other parts of his writings have done good. Here he positively affirms ; that all Dropsies arise from a thin, weak blood ; and that this thinness of the blood is occasioned, 1st, By the loss of too much blood, or by too large evacuations of some kind or other : 2dly, By long diseases : 3dly, By drinking too many spirituous liquors, or too much water when men have been accustomed to stronger drink. From what has been already said in this chapter, it is apparent, that a Dropsy will as certainly be caused by too thick blood, as that which is too thin ; and that it is frequently found so in dropical persons. By the sequel also it will, I hope, appear, that a suppression of the piles, menses, or any other usual evacuation, will as soon cause a Dropsy, as too great a discharge of them. From the nature of spirituous li-  
quors,

quors, which always harden fleshy fibres, and from experience, we are assured, that the two frequent use of them must destroy the tone of the stomach and bowels; from whence a viscid fizy chyle and blood must be expected. Bellini's theory, and every day's experience make it plain, that after all inflammatory fevers, the small-pox, gout, rheumatism, &c. the blood and juices become so thick and fizy, that frequently a stagnation is caused, obstructions formed, and eruptions break out in some part or other of the body; so that bleeding after such kinds of disorders is equally necessary as at the beginning. For want of this evacuation after the measles and small-pox, how many persons have fallen into an atrophy, or died of a marasmus? Whenever the greatest physician writes a theory of any disease, it should be done with the utmost caution, and founded upon a long series of experiments and observations. Wherever these are wanting, all theory in physic is to be suspected. A man may better write philosophy, as Des Cartes did, by imagination, without any regard to nature, than physic without facts; because an error in the former case can never be of such ill consequence

Bleeding  
necessary  
after in-  
flamma-  
tory dis-  
tempers.



as the loss of a man's life may be, by a mistake in the latter. Dr. Sydenham's error in the the theory of the Dropsy, I fear, has been the death of many a person; but what has been already said, and what will hereafter follow in this discourse, will, I hope, give mankind a better idea of the nature of this great and terrible distemper.

Dr. Preston's account.

Dr. Ch. Preston gives us a short, but very satisfactory account of the nature of a Dropsy, where (*r*) he says, the true cause of a Dropsy must be either from the mechanic structure of the parts, or the indisposition of the blood. The fibres and pores of the vessels or vesiculæ, which are between the arteries and veins, may be either relaxed, or compressed, and the blood may be either too thin, or too viscid. If too thin, it passes easily through the pores of the vesiculæ; and if too thick and viscid, it cannot pass through the capillary vessels, but compresses the adjacent parts, and so forms obstructions.

Dr. Pitcairn's account.

Dr. Pitcairn says, a Dropsy may arise from any of these four causes: 1st, The blood may be too viscid for the serous parts to flow through the urinary, or cutaneous passages:

(*r*) Philos. Trans. abrid. vol. 3. p. 142.



passages : 2d, The vessels may be straitened, from some cause compressing or stopping them, as stone in the kidneys, &c. 3d, The motion of the blood may be too languid from evacuations of it by phlebotomy, &c. 4th, Because some usual evacuations, or passages, are either suppressed, or compressed, whence the lymphatics must necessarily burst.

In putting a stop to any usual evacuation, great caution ought to be used for fear the remedy should prove worse than the disease. Our great master Hippocrates says expressly, that when the bleeding piles have been of a long standing, they should not all be stopped at a time ; but that one should be kept open. Every good surgeon knows, that it is not only troublesome, but very dangerous, to dry up old ulcers suddenly. Dr. Willis says, he knew an anasarca come from an itch ill cured ; and another, from the untimely drying up an issue, which had been made a great many years before : and Dr. Strother is positive, that the over-neatness of a nurse in drying up the humour discharged from behind the ears of young children, has often hurried them to their graves.

Old drains not suddenly to be stopped.

Etmul-  
ler's ac-  
count.

Etmuller enumerates these eight causes of a Dropsy: 1st, Intermitting fevers; 2d, Asthma; 3d, The fault of the kidneys; 4th, The fault of some of the more noble viscera, spleen, mesentery, womb, &c. 5th, Jaundice, and other obstructions; 6th, Retention, or too great loss of blood; 7th, Fluxes of all kinds; 8th, Too much drink, as cold water, tippling strong liquors, brandy, &c.

Boer-  
haave's  
account.

Boerhaave, in his one thousand two hundred and twenty-ninth aphorism, makes them ten, viz. 1st, An hereditary disposition; 2d, Too much cold water drank of a sudden, which is not discharged by vomit, stool, sweat, or urine; 3d, Acute diseases; 4th, A bloody flux, of long standing; 5th, Long obstructions of the viscera, a schirrus of the liver, spleen, pancreas, mesentery, kidneys, womb, and intestines; 6th, Jaundice, quartan ague of long standing, lenter, diarrhæa, dysentery, empyema, hæmoptæ, and gout; 7th, Too great evacuations, especially of arterial blood; 8th, Drinking sharp, fermented liquors; 9th, Tough and hard food; 10th, Hydatides, and such like, as melancholy, scurvy, &c.

Dr. Willis says, a Dropsy may be caused, 1st, By the blood's being too thick and viscid, or too thin; 2d, By the lacteals being obstructed or burst; 3d, By a fault of the lymphatics.

Dr. Willis's account.

Van Helmont will have a fault of the urinary passages to be the only cause of this disorder; for he says, no man, whose urine passes freely, will ever become dropical. The want of this necessary evacuation, I own, does sometimes cause, and always very greatly increases, a Dropsy; but there are many instances to be met with, of people that have laboured under this distemper, and have no deficiency of this kind; as may be seen above.

Van Helmont's account.

Many of the antients thought, that all Dropsies proceeded either from a fault in the spleen or liver; but this mistake I have taken notice of already. Al. Trallian says, a Dropsy may be caused in the spleen, colon, mesentery, womb, loins, and bladder, by too great a flux, or retention of the menses, and by a coldness on the lungs, as also in the diaphragm, and in many other parts of the body. Aretæus says, that large draughts of cold water, windy food, indigestion, and huprestis, occasion this disorder: and to these

The antients account.

P. Ægi-

P. Ægineta adds, a hardness, or scirrhus, about the spleen and liver, long fluxes of the bowels, long fevers, a suppression of the hæmorrhoids and catamenia, an asthma, want of sleep, and the like. C. Aurelianus thus enumerates the secondary causes of a Dropsy, viz. a cachexy, long fevers, scirrhus of the liver, spleen, stomach, womb, and peritonæum; a dyspnæa, windiness of the stomach and colon, a continued looseness, a dysentery of long standing, a retention of the menses, a sudden and unseasonable stopping of the piles, long fasting, too much drinking of water, especially that which is salt, the taking too many medicines, and the like.

When Dropsies are the consequence of acute distempers, they are always more or less dangerous, according to the degree of weakness caused by the original disorder. Hippocrates (s) thought the seat of all these kinds of Dropsies was either in the lower belly, or liver; but though his prognostic is allowed to be good, yet his theory must certainly be erroneous, since acute disorders will fix upon any part of the body.

In

(s) Coac. lib. 2. sect. 2. aphor. 26.



In the former (*t*) of these cases, according to him, the feet swell, and diarrhæas follow, which continue for a long time, but neither lessen the swelling of the belly, nor the pain; but in the latter, the feet swell, the excrements are hard, there is an inclination to cough, and the belly swells sometimes on one side, sometimes on the other, and sometimes falls again.

After long sweatings the legs begin to swell, and a Dropsy ensues (*u*). This is frequently so in a consumption; so that whenever the legs swell in this case, the patient is generally thought to be past recovery. The same likewise happens when the pores of the skin have been long obstructed. A young gentleman near Leyden (*v*), by being often out at nights, in star gazing, at length had the pores of the skin so totally obstructed, that when he had worn a shirt five or six weeks, it would be as white as if he had worn it but one day. This brought him into a Dropsy, which was after some time perfectly cured. . Dysenteries, diarrhæas, and tertian agues of long continuance,

(*t*) Ibid. Aphor. 27, 28.

(*u*) Hippocr. de Flat. p. 299.

(*v*) Philos. Trans. abrid. vol 3. p. 10.



continuance, and the voiding much blood upwards and downwards, dispose men to Dropsies, according to Hippocrates. Splenetic persons, that are afflicted with a dysentery, die of a Dropsy or lientery (*w*). In bilious constitutions, when the stools are uncertain, small, white, mucose, causing pain below the navel, and when the urine is not made freely, a Dropsy must be the consequence. Hoffman shews how a retention of gouty matter causes an asthma, or shortness of breath, then costiveness, and so a Dropsy; and the same may doubtless be said of that matter which causes the scurvy, or any other chronical disorder, which often end in this distemper (*x*).

I have often known Dropsies come from falls, or over-straining the body in lifting up heavy burthens. This is a common case among the poorer sort, and has been before observed by Bartholine.

How to  
prevent a  
Dropsy.

Before I take my leave of this head, it may be proper to say a little concerning the way to prevent a Dropsy coming upon us. How small a quantity of meat and drink will satisfy nature, may be learnt by the lives

(*w*) Hippocr. aph. 43. sect. 6.

(*x*) Hoffm. Consult. vol. 2. p. 307.

lives of Cornaro, a nobleman of Venice, and that of Dr. John Barwick, a divine of our own country. The former (y), by regularity in diet, preserved an exceeding weak constitution to a good old age, one egg at last being sufficient for two meals : and the latter (z), being an implacable enemy to Oliver Cromwell and his administration, was by them thrown into prison ; where, being forced to live upon bread and spring water, he miraculously recovered of a consumption, when his case before had been given up for lost by his physicians. From these, and many such like instances that often happen, I think we may very safely conclude, that there are but few persons in this nation who do not eat and drink every day, whilst in health, much more than is required to keep the machine in motion, or to support nature ; by this means the blood-vessels, lymphatics, and other conduits of our bodies must constantly be upon the stretch, and upon every little accident must be in danger of being broken. This must always have been the case, had  
not

Cornaro.

Dr. Barwick.

(y) See Cornaro on health.

(z) Vita Joh. Barwick, p. 82, &c.

Use of the  
liver.

not Providence furnished us with so many ways to discharge the superfluous parts of the ingesta. The liver and all the glands of the body, the intestines, kidneys, and pores of the skin, are all ready to assist in carrying off this superfluity. The first of these is so very useful upon this account, that, next to the heart, brain and lungs, I think it ought to be esteemed the most necessary organ of life, and consequently that obstructions here formed are exceeding dangerous. Dr. Cheyne (*a*) is well satisfied that this is the principal use of the liver; that all dire and horrible hysterics, epilepsies, apoplexies, manias, cholics, scurvies, jaundice, and hot ulcers, &c. have from hence their origin; and that no full feeder was ever opened, in whose liver there was not found some gross fault or imperfection. To prevent obstructions then in this and every other part of the body, nothing can be more necessary than temperance, and a strict regularity in the non-naturals. The constant tippling of spirituous liquors late at night, and whetting in a morning, are pernicious customs, which every man that is desirous of life, ought by all means possible carefully to avoid.

Of tem-  
perance  
and regu-  
larity.

(*a*) English Malady, p. 185.

avoid. Rich food and high sauces are no less detrimental to our constitutions; and so is every other thing that increases the circulation of our blood; for it has been demonstrated (*b*) that the length of our lives is reciprocally proportioned to the quickness of our pulses. The changing day into night, and night into day, a thing too common among the great ones, is a custom vastly destructive of health. Almost all creatures, except some carnivorous and domestic animals, go to bed and rise with the sun, whose light and heat gives life and vigour to each part of the creation. Not only the time of lying in bed, but the position of our bodies there, should exactly be observed by those who are desirous to prolong their lives to the utmost. Too long a confinement to bed weakens, and sitting up late at nights destroys the appetite, makes the legs swell, and does injury to the constitution. Dr. Lower (*c*) assures us, that persons of a cold constitution should neither lye with their feet nor heads too low in bed; for in the former case, they can neither be warm, nor fall asleep; and in the latter, the face

(*b*) Barry on Consumptions, p. 91.

(*c*) De Corde, p. 133.

face is apt to swell next morning, the eyes are blood-shot, the head aches, and there is a noise in the ears, &c. Mr. Hales (*d*) also proposes lying in a reclining posture, as soldiers do in barracks, to prevent the stone and gravel. To these inconveniencies let me add, that upon lying too low with our heads, there is not a due evacuation of urine; for by this means the weight of water is taken off the sphincter of the bladder, and the urine is not separated from the blood in due quantities; whence Dropsies, asthmas, and other distempers will arise. Every man, doubtless, must have observed, that when the urine has been thus retained in the night, upon exercise next morning, large quantities have been discharged, though little or nothing has been drank. With good reason then Dr Sydenham advises, that in the small-pox, where there is a suppression of urine, the patient should immediately be taken out of the bed and placed in an erect posture, for by this means these complaints will sooner be removed than by the most costly medicines. From the same way of reasoning, Dr. Lower advises those that drink hard not to go to bed till they have discharged by urine the greatest

(*d*) Vol. 1. p. 229.



est part of what they have drank ; and says, he knew a hard drinker, who by this means lived to a good old age, without being afflicted with any considerable distemper. It is equally pernicious to eat late suppers, and go to bed with the stomach loaded with strong food, and such as abounds with muriatic salts. If persons, notwithstanding what has been here said, will still indulge themselves in eating and drinking to excess ; the next day exercise is absolutely necessary to carry off the load, to bring the body to the usual standard of health, and prevent Dropsies and other distempers, whereof death must inevitably be the consequence. But of this enough.

## C H A P. V.

*Of the Signs of a Dropsy.*

A swelling, the only true sign of a Dropsy.

I Have already demonstrated that there can be no essential sign or symptom of a Dropsy, but the swelling of the part affected. Our bodies are subject to so many kinds of tumors, that at their first coming it is sometimes exceeding difficult to discover which is dropfical. In the fair-sex gravitation often has, and must again be mistaken for a Dropsy by the best physicians. Fat has sometimes deceived the judicious, and when a Dropsy has been attended with much pain, it has often been taken for very different disorders: in the belly for cholic, in the breast for an asthma, in the head for cephalalgia, &c. The lymphatic vessels, like many other parts of the body, are not equally susceptible of pain; so that we often are mistaken in this disorder, and frequently apprehend no danger, till the breach is too wide to be repaired. This then

then being the true state of the case, it is evident, that all the signs given us, by the very best authors, will afford us little or no help at the beginning of a Dropsy; but they may, however, sometimes be serviceable before the constitution is quite destroyed. This I desire may be remembered throughout this whole chapter.

The general signs of a Dropsy, says Aretæus, are a pale complexion, dyspnæa, and a cough sometimes. Dropfical persons are heavy and unwilling to move; have no stomach, and if they eat, though it be little, and not windy, yet they are filled and puffed up, as if they had eaten a great deal: they never sweat, not even in bathing: their veins on the backs of their hands, and upon their bellies, are swelled, and of a blackish colour: their sleeps are troublesome, long in coming, and short: they are fainty, and talk little, but patient, and desirous of life.

The general signs of a Dropsy, from Aretæus.

According to C. Aurelianus, the general signs of a Dropsy are, a swelling, difficulty of motion, breathing, and sleeping, especially after eating; thirst, little urine, loathing of food; vesiculæ, or little bladders of water; pustules; and wounds hard to be cured.

C. Aurelianus.

Those that fall into a Dropsy from grief have hard stools, with a mucosè matter, and bad urine. They are swelled in the hypochondria; have pain in the belly and muscles of the back; fevers, thirst, dry coughs, shortness of breath, especially upon motion. Heaviness of the legs, loss of appetite, and fulness after eating, though but little, are constant attendants upon this disorder, according to Hippocrates (*e*).

Hippo-  
crates.

Syden-  
ham.

Dr. Sydenham cuts the matter short when he assures us, there are only three signs essential to a Dropsy; viz. shortness of breath, suppression of urine, and intense thirst. For the truth, of this, let the foregoing histories and observations be consulted. Dr. Leigh (*f*) positively affirms, that in his course of practice, he had met with several dropical persons, who through the whole course of the disease had retained a very good digestion, and whose urine both in quantity and quality had been agreeable enough. Thirst, however, being one of the most constant and troublesome companions that attend upon

Of thirst.

(*e*) Coac. Prænot. sect, 2.

(*f*) Dr. Leigh's Nat. Hist. of Cheshire, &c. b. 2.

upon a Dropsy, I shall endeavour to shew from whence it is possible to arise.

1. Mr. Cheselden, in his anatomy, assures us, that about six ounces of saliva may possibly be separated by the glands about the mouth after every meal : if so, when either the juices become viscid, or the lymph, by a distention or rupture of its vessels, is discharged in too great a quantity upon any other part of the body, less of it must be discharged by the salival glands than was in a healthy state ; and consequently, the mouth and parts adjacent must become hot, dry and parched, and great thirst must follow, from a bare deficiency of this necessary fluid. Thus it always is in fevers, and thus it sometimes is in Dropsies (*g*).

1. From want of saliva.

2. Etmuller says, that the thirst, in dropfical, cachectic and scorbutic bodies, arises from too great a quantity of salt in the saliva of such persons. Was this the case, the more saliva passed through the mouth, the more intense the thirst must be ; but this we find by experience to be directly contrary to truth ; for upon squeezing the salival glands by chambling a stone, or any hard thing,

2. From too much salt.

K 3

with-

(*g*) See Morgan's Mechan. Practice of Physic, p. 108.



without any other moisture than from these glands, thirst in these cases will frequently be lessened, if not entirely taken away.

3. From  
corrosive  
or alkali-  
ous salts.

3. The great Boerhaave (*b*), and others (*i*), have demonstratively proved, that there are no fixed acid or alkalious salts contained either in the blood or juices of a human body, whilst in a healthful state; but that, by stagnation and heat, the salts may become volatile, and of fiery alkalious nature. In the beginning of a Dropsy there is generally little or no thirst, or such at least as can very easily be borne by the afflicted. Upon the bursting of the lymphatics, the extravasated fluid becomes corrosive, and destroys the parts adjacent; from whence proceed pain, fever, heat, thirst, restlessness, and many other terrible symptoms. But to return,

Prognostic  
signs.

The Dropsy is a sore disease, of which few recover (*k*); and that which comes after acute disorders is very rarely cured (*l*). An hereditary Dropsy is often too hard for the most powerful medicines. Those only can be recovered from this disease, whose viscera are sound and strong; who can easily digest  
their

(*b*) Chemia, vol. 2. process 92.

(*i*) Phil. Trans. abr. vol. 3. p. 331. (*k*) Aretæus,

(*l*) Hippoc. Prænot. 81. C. Cels. p. 72.

their food, breathe freely, are without pain, are of an equal heat all over their bodies, and are not fallen away in the extreme parts; for these parts had better swell than emaciate: the belly and extremities should be soft; there should be neither cough nor thirst, and the tongue should not be dry at any time, especially after sleep: this seldom happens. They should eat with pleasure, and after a fuller meal than ordinary should not be uneasy. The belly should easily be moved by medicines, and the natural stools should be soft and figured. The urine should be in proportion to the meat and drink. They should bear fatigue; and in short, the whole man should be in all respects as if there was no danger, or but little; for where no good symptoms appear, there can be no hopes of recovery; and where they are but few, the hopes can be but small (*m*).

When we undertake the cure of an Ascites, it is proper to measure the belly every day, and also the drink and urine. If the belly increases, and the quantity of urine grows less, there can be but little hopes of

K 4

recovery;

The belly, drink, and urine, to be measured every day.

(*m*) Hippoc. Prædict. lib. 2. p. 89. C. Celsus, lib. 2. c. 8.

recovery; but if that falls, and this increases, provided the strength and appetite keep up, we may be in hopes of success (*n*).

Dropsies  
hard to be  
cured.

The Dropsy is a chronical distemper, not only unpleasant to behold, but very difficult to cure. Few recover of it but by good fortune, which is more owing to Providence than art (*o*).

All Dropsies are hard to be cured; but those which come from stones are more so, than those from hardness. Those from a dysentery, or cholic, are worse than those from too much drink; and those of the liver are more dangerous than those of the spleen. Women are cured with more difficulty than men; and children with more ease, than either young men or old (*p*).

Sir Theod. Mayerne (*q*) observes, that those who are subject to disorders of the parts necessary to respiration, as the lungs, &c. for the most part fall into Dropsies of the breast, and at length, after great uneasiness, are suffocated.

In

(*n*) C. Celsus, p. 163. (*o*) Aretæus.

(*p*) C. Aurelianus. (*q*) Prax. Med. p. 127.

In a Dropsy, attended with a fever, if the urine be thick, and small in quantity, it is mortal, according to Hippocrates (*r*): and hence, I suppose, Dr. Willis (*s*) assures us, that if the urine in an Ascites be red, lixivious, and little in quantity, there is great danger; and then gives a solution of the phænomenon according to his particular way of philosophising; which not being satisfactory to me, I forbear to transcribe.

Bad, urine  
a bad  
symptom,

Ætius, Oribasius, and others, have observed, that a cough, coming after an anasarca is begun, generally proves a mortal symptom. The reason, I think, is obvious, since in this case the hydropic humour must be fixed upon the lungs, or lodge upon the diaphragm.

A cough,

A looseness at the beginning of a Dropsy, if without loss of appetite, cures it; but the falling sickness here leaves no hopes (*t*). If when the liver is filled with water, it bursts through the omentum into the abdomen, the belly fills, and the sick die (*u*). Spots and sores upon the legs of dropical persons,

A looseness good  
at the be-  
ginning.

Spots and  
sores a bad  
symptom.

(*r*) Hippoc. Coac. Prænot. sect. 2. p. 190.

(*s*) Th. Willis, op. Med. p. 270.

(*t*) Hip. Coac. Prænot. p. 191. aphor. 29. 7.

(*u*) Hippocr. aphor. 55. 7.



persons, whether red or purple, I have often observed to be a mortal symptom: so did Hippocrates, long since, in the cases of Bion and Ctesiphon (*v*).

Poor persons sooner cured than rich ones.

Poor people are more easily cured of Dropfies than the rich; and yet these are not to be cured without temperance. A disciple of Chrysippus told king Antigonus, that a friend of his, who was noted for intemperance, could not be cured of this distemper; and so it happened: for though both the king and the physician attended him, yet he destroyed himself by eating and drinking (*w*).

Change of countenance mortal.

In a Dropfy, if the colour of the face changes of a sudden from red and florid, to a dark lead colour, the patient will die in a few days, or a month at farthest (*x*).

Bleeding at the nose mortal.

Bleeding at the nose, or elsewhere, I have often observed to be a mortal symptom in this disorder: so it was in the captain above, and in a man who bled spontaneously at the arm (*y*). After a Dropfy has been carried off (by medicines I suppose) our countryman,

(*v*) De Morb. Popularib. lib. 7.

(*w*) C. Celsus.

(*x*) Baglivi Prax. Med. p. 127.

(*y*) Hecksteter Obs. Med. cap. 7. decad. 2.



countryman, John de Gadesden (*y*) says, if blood appears in the stools, it is a mortal symptom.

Dropfical persons are often subject to the falling sickness, loosenesses, and other ill symptoms (*z*). Falling sickness.

In the jaundice, when there are frequent stools, but small, slimy, and mucoſe, with pain about the liver, and urine thick and made with difficulty, a Dropſy is generally the conſequence (*a*). Jaundice.

If a Dropſy has been cured by medicines, and returns again, the caſe is deſperate (*b*). Relapse.

In a word, the danger of all Dropſies muſt be greater or leſs according to the nature of the part where it is ſeated, the time it has continued, the damage done to the lymphatics and the other viſcera. Thoſe that ariſe from a diſtention of the lymphatics are moſt eaſily cured. If the lymph only oozes out, the danger cannot be ſo great, as where the veſſels are burſt; and ſuppoſing a rupture of them, the danger muſt ſtill be proportioned to the number of thoſe that ſuffer,

Boerhaave,

(*y*) Roſ. Anglic. p. 57. 3. (*z*) Hippocr. aphor. 30.

(*a*) Ibid. aphor. 31. (*b*) Ibid. aphor. 36.

Diagnos-  
tic signs.

In the  
head.

Boerhaave, in his aphorisms, tells us, that a Dropsy of the head (*c*) is of different kinds; for the water may be contained, 1st, Between the external teguments: 2d, Between them and the cranium: 3d, Between this and the membranes of the brain: 4th, Between these membranes and their duplicatures: 5th, Between these and the cerebrum: 6th, Between the foldings of the brain: 7th, In the cavities of it: and to these I may add, 8th, Between the tables of the skull: and 9th, In the very substance of the brain itself, as may be seen in the foregoing histories of the second chapter.

When the tumor is on the outside of the cranium, it is easily distinguished by its colour, softness, &c. but when the water is lodged in any part within, it is not easily to be discovered, till after the death of the afflicted. A palsy, epilepsy, gutta serena, &c. are sometimes caused by water in the head; and many persons, I am satisfied, have died of this disorder, when it has not once been suspected by either the patient or physician (*d*). Hippocrates, however, gives the

(*c*) The Greeks call this disorder, ὕδρωξινος, and ὕδρωξινος, from ὕδωρ water, and κεφαλή, the head.

(*d*) Vide Obs. I. lib. I. Nicol. Chesneau.

the diagnostic symptoms thus: an acute pain in the head and temples; a shivering and fever now and then; pain about the eyes; and dimness of sight. These persons frequently see things double; a vertigo and blindness often seizes them upon rising, and they can neither bear wind nor sun. There is a noise in the ears: they are apt to start upon every sudden sound; and they vomit up thin phlegm, and sometimes their food: the skin of the head is contracted, and wants to be rubbed (*e*).

Many authors have said a great deal upon this distemper, but with how much satisfaction to the curious, I shall leave to others to determine, and only refer my reader to the places quoted at the bottom of the page, where he may find it treated of more at large (*f*).

When there is a collection of water in the lungs, or breast, a fever and cough troubles the party: the breath is short, the feet swell, the nails grow crooked, and the symptoms are the same as in an empyema, but

In the  
breast.

(*e*) Hippocr. de Morb. lib. 2. p. 466.

(*f*) See Wepfer de Morb. Capitis, Obs. 21, &c. P. Æginet. lib. 6. c. 3. Etmull. Op. Med. p. 417. L. Mercat. Concillior. p. 271. Morgan's Philos. Principles of Med. p. 199. Turner's Art of Surgery, &c. J. Schenk. Obs. Med.

but not so acute. If we use an infusion, fomentation, or fumigation, and no matter follows, water is within. If you lay your ear to the side a good while together, the water bubbles like vinegar (*g*). This continues a-while, and then it falls into the belly, when the patient seems to be freed from this disorder ; but soon after the belly is inflamed, and he suffers as much, or more, than he did before. Some swell in the belly, scrotum, and face, which many think proceeds from the lower belly only. (*b*). To these Riverius (*i*) adds a shortness of breath when in bed, a pain in one of the arms, or shoulders, and a palsy.

The motion of the water may be heard upon turning the body from one side to the other in bed. There is a dry cough, and shortness of breath, especially upon going up hill. Thirst, restlessness, palpitation of the heart, an intermitting pulse, and frequent faintings, are the most common symptoms of this disease (*k*).

Piso

(*g*) See Willis, p. 235.

(*b*) Hip. de Morb. lib. 2. p. 483. de Affect. in ter. p. 544.

(*i*) Op. Med. p. 255. See chap. 3. prop. 6. above.

(*k*) Willis Etmull. Berbet. Chirurg. p. 54.



Pifo (*l*) makes only three fymptoms of this diforder : 1st, The found of the water upon turning the body from one fide to the other : 2d, A difturbed fleep at going to bed : 3d, A palfy of the fide affected. Dr. Lower (*m*) fays, that a young gentleman, who died of this diforder, could only fleep when he lay upon his belly in the laft ftages of it.

When the pericardium has too much water in it, the fides of the heart cannot be dilated enough to receive the blood that is constantly brought to it ; fo that the pulfe muft be leffened by degrees, till a fyncope, and at length death itfelf, follows. It is probable that this difeafe fucceds a palpitation rather than the contrary, becaufe a palpitation often happens to perfons in health (*n*).

In the pericardium.

In an Afcites the belly and feet fwell, the face, arms, and other parts emaciate. The tefticles and penis are enlarged, and the latter becomes crooked. If you prefs the belly with your hand it yields to it, for the humour goes to fome other part. When the

In the abdomen.



the party turns himself in bed, from one side to the other, the humour goes to the side he lies on, and occasions a swelling and a noise that may be heard. If you make an impression with your fingers, the place becomes hollow, and remains so a long time (o).

Dr. Sydenham says, that a swelling about the ankles, which goes down in a morning, but pits like dough at night, is the first sign of this distemper. This is far from being true; for there are Dropsies formed in several parts of the abdomen, which have proved mortal, and yet the legs have never once swelled. Besides, women with child, those that want their catamenia, old men after a fit of the asthma, and young ones after fevers and other long fits of illness, have their legs swell without any damage to their constitution, or any other symptom of a Dropsy; and all these recover without medicines.

Of swelled legs.

Sir Richard Blackmore is of opinion, that the water which distends the legs of dropical persons is extravasated, for these two reasons: 1st, because this was the opinion of the ancients, who therefore gave it the name

name of Aqua interius: 2d, Because, that by blistering the legs or pricking them with a needle, no blood, but water follows. However, till better arguments are produced, I must beg leave to dissent from him; for, 1st, The antients knew nothing of the lymphatics, and, therefore, though they might give it this name, yet I think this argument can be of little or no force: 2d, His other reason proves too much, and consequently nothing. In a sound body the lymph, and not blood, is discharged by blisters. It is hardly possible to wound the skin in any part of the body by a needle, but some blood must follow, and though in a dropfical state, upon a small wound made, more water may be let out, which may dilute and take away the colour of the blood, yet I think it is next to impossible but some blood should be let out by this kind of puncture. Besides, if we suppose the swelling to abate upon lying all night in bed, it is evident it cannot be out of the lymphatics; for a fluid that is once out of the vessels wherein it used to circulate, can never get into them again, but must continually increase, unless it finds a passage by some neighbouring emunctory, is let out by ma-

nual operation, or by distention and corrosion of the vessels makes a passage for itself.

In the  
liver.

In Dropsies of the liver, there is either a violent cough, or an inclination to it, which is not so frequent in other kinds of Dropsies (*p*).

Perito-  
neum.

A Dropsy of the peritonæum may be known by the tumor's being least prominent about the navel; because the tendons and peritonæum are not easily here separated (*q*).

Womb.

Hippocrates (*r*) tells us, that Dropsies of the womb may be discovered by the touch, the os uteri being small and soft by reason of the water. To this we must add, the continuance of the swelling more than nine months, and the external form of the tumor.

Tym-  
pany.

Women are more subject to a tympany than men. Doctors Drake and Leigh (*s*) say the reason is, because a Dropsy of the womb or ovaria is always mistaken for this distemper.

(*p*) Hippocr. de Prænot. sect. 8.

(*q*) Cheselden's Anatomy, p. 139.

(*r*) De Natura Muliebrum, p. 576.

(*s*) Anthropolog. nova, p. 164. Natural History of Cheshire, b. 2. p. 70. 73.

distemper. Mr. Littre and Albrechtus (*t*) are as positive that it is always owing to a distention of the colon, cæcum, or some other part of the intestinal tube, with wind and vapours. From the latter of these authors, Mangetus gives us several histories of this kind; and one of a man, who having had several glysters given him for the cholic, at last, after many days, voided a mass consisting of several vesiculæ, some of which were large as walnuts, filled with wind. They all adhered closely together, and when broken sent forth a most intolerable stink.

The scrotum or bag of a man consists of several parts, each of which are subject to the Dropsy. 1. The scrotum, or bag, is sometimes so distended with a watery humour, as to retain the impression of our fingers and become transparent. This (*u*) is a kind of a partial Anasarca, and very seldom happens, unless some other parts of the body are dropfical: 2. In an Ascites the process of the peritonæum, or rather the cystis hernialis, sometimes fills with water,

Of the  
hernia  
aquosa.  
Four  
kinds.  
1.

2.

L 2

and

(*t*) Histoire de l'Academ. des Scienc. & Manget. Bibliothec. p. 70.

(*u*) Turner's Art of Surgery, vol. 1. p. 218. Sharp's Operat. &c.

- and becomes of the shape of an intestine. This process is the seat of all true herniæ, and therefore this kind of distention is frequently taken for a rupture; but if water is the cause of the tumor, it will easily pass back again into the abdomen (*v*), if the party be laid upon his back and the tumor pressed gently with one's hand. 3. Water sometimes gets between the inner coat of the scrotum, and the external (*w*) covering of the testicle. This very seldom is an original distemper, but frequently comes where persons have long been afflicted with an Ascites, Anasarca, or Dropsy of the breast. It may be known thus: first, the tumor comes on by degrees; secondly, the scrotum feels harder than in the foregoing case; thirdly, if a candle be held on the farther side of it, in a dark room, the bag will seem to be transparent. 4. Water lies sometimes between this external coat called tunica vaginalis, and the internal one called albuginea; as also between this and the substance or body of the testicle. This is generally an original disorder, and may thus be discovered:

(*v*) Boerhaave's aphor. 1227.

(*w*) P. Ægin. lib. 6. c. 62. C. Celsus, lib. 7. c. 18.



vered: first, it is often caused by a fall or bruise; secondly, there is greater pain than in any of the foregoing cases; thirdly, the tumor is harder, lies deeper, and does not so easily receive the impression of our fingers, as in the foregoing; fourthly, but it is softer and more pellucid than a sarcocele, or fleshy rupture; fifthly, a hernia ventosa is softer than this, and does not always continue of the same size as this generally does.

Having said thus much concerning the Dropsy, or watery swellings of the several parts of a human body, before I come to treat of the methods of cure, it may not be amiss to say something of the Anasarca, or universal Dropsy.

Of the  
Anasarca.

When a human body is swelled all over, from head to foot, looks pale like a corpse, and easily retains the impression of our fingers, most authors call the disorder an Anasarca. A phlegmacy, or leucophlegmacy is of the same nature, and only differs from it in degree; for the former always begins where the latter ends, according to Forestus, Gorrhæus, and many others.

Its name.

Dr. Willis will have this distemper also to be divided into the general and particular Anasarca; but when only a limb or two are

affected, the tumor is for the most part said to be an *Ædema*, or *ædomatous* swelling.

Cause.

The part  
affected.

The cause of this disorder is doubtless the same with that of the several kinds of Dropsies before mentioned. The lymphatics are spread all over the body, and the *membrana adiposa* must certainly have a great number of them, not only to supply the fat, but the other juices which are exhausted by muscular motion. These vessels are exceeding fine, and the diameters of them very small in this part; so that obstructions may easily be caused, from whence a distention of the part must necessarily follow. This membrane not only covers all the muscles, but passes likewise through the interstices of them. Both in dropical and fat people, the muscles themselves continue of the same size and shape as they were before these accidents happened. Upon dissecting the bodies of such as have died of particular disorders, I have frequently found this membrane vastly distended in a few hours by the fermentation of the juices, the pores of the skin being totally obstructed. This membrane is the seat of a great number of disorders, whose origin has not yet been sufficiently explained. It is but lately  
that

that the great Boerhaave proved it to be the seat of all venereal ulcers; and I am apt to think all cutaneous eruptions, not excepting the small-pox, have from hence their origin. However this may be, I believe every one allows it to be the seat of the Anasarca; which, as it acknowledges the same cause with the several kinds of Dropsies before enumerated, must consequently give way to the same method of cure.

## C H A P. VI.

*Of Dropsies that have been cured  
by simple Medicines.*

FROM what has been said in the foregoing chapters, the nature of the Dropsy is, I hope, sufficiently explained. The several kinds of this terrible distemper have been enumerated: the prognostic and diagnostic signs of it have been laid down in as plain a manner as possible. Before I come to treat of the general methods of cure, I shall produce some few histories out of many that have been wrought by simple medicines. As the frame and make of a human body is and will be the same in all ages, the same things that have formerly given relief, will hereafter without doubt, sometimes prove serviceable. This, in my opinion is the only sure way of fixing the method of cure in this and all other disorders. A man may in his closet write a mathematical theory of diseases, and afterwards compose a number of cases that will  
exactly

exactly tally with his hypothesis, which may perhaps be false, notwithstanding all his demonstrations, and may be so far from relieving the afflicted, that it may increase the disorder and hasten their end. Most medicines were at first found out by chance and observation (x). Abstracted reason never yet produced any thing of this kind. Before physic was reduced to an art, such things as upon trial were found serviceable in the disorders which mankind was troubled with, were written in tables and hung up in temples, that they might easily again be made use of upon occasion. If Pliny may be believed, the method of giving glysters, and the art of letting blood, were taught mankind by the Ibis and Hippopotamos, two irrational creatures, that were common in Egypt. In my opinion, then, the only sure foundation for a just method of practice must be laid, in shewing what medicines have cured particular distempers: the manner of their operating upon human bodies, and the several matters whereof they consist, may afterwards be considered and explained, according

Medi-  
cines,  
how found  
out at first.

(x) See Corn. Celsus, & Gab. Fallop. op. p. 43. c. 8. Mr. Geffrey's Treatise of Drugs in voce Cort. Peruv. &c.



cording to the rules of philosophy or mathematics.

### S E C T. I. *Dropsy of the HEAD.*

Cured by  
issues.

Hist. 1. A child, about four years of age, having his head swelled to an extraordinary size, the face full and pale, and the eye-brows and eye-lids prodigiously puffed up, was cured by fontanelles or issues behind the ears (*y*).

By caute-  
ry.

Hist. 2. A gentleman, forty years of age, could get no sleep for a long time together. At length a tumor being discovered on the back part of his head under the skin, a cautery was applied to it. A yellow sort of water was hereby discharged, in considerable quantities for many days together, which entirely removed all his complaints (*z*).

By Gui-  
do's ban-  
dage.

Hist. 3. A new-born infant having an hydrocephalus, the sutures of his head being very wide, was cured in fifteen or twenty days by the bandage of Guido, without any other means (*a*).

### S E C T.

(*y*) Wiseman's Surg. vol. 1. p. 219.

(*z*) C. Piso de Coll. Serof. Obs. 2. See also J. Schenkii Obs. Med. l. 1. p. 10.

(*a*) River. Op. Med. p. 571. Obs. 6.

S E C T. II. *Dropfy of the BREAST.*

Hist. 4. A young gentleman at Oxford was relieved in a Dropfy of the breast, by purging with calomel and refin of jalap. He afterwards took a diuretic and pectoral apozem, and by this means was perfectly cured (*b*).

By calomel and refin of jalap.

Hist. 5. A young gentleman of a strong constitution, much used to hunting and other violent exercises, at length had a large tumor in his throat. The left side of the lungs seemed to be swelled, and the heart to be thrust out of its place towards the right side. After this had continued some time; he thought something burst in his throat, and in half an hour's time, a humour seemed to drop from the top of his breast to the bottom, which was not only perceived by him, but heard also by the bystanders. He continued hearty, and so took no care of himself, till the motion and sound of water could easily be heard, when he moved his body forward, or turned it from side to side. A cautery was applied between the sixth and seventh vertebræ, a silver

By cautery.

(*b*) Willis de Pector. Hydrop. p. 236. River. Obs. 3. cent. 4. Musitan de Pulmon. Hydrop. p. 392.

silver pipe was put into the wound, and about six ounces of a thick, white, milky matter, like chyle, was let out. The next day, as much more was taken away; but on the third, the discharge being increased, he became fainty, and fell into a fever. As soon as he grew better, a less quantity was taken away at a time, till the breast was quite emptied. He then carried the pipe with a stopple in his breast, whereby once in four and twenty hours, he discharged what matter had been collected in that time. He made use of very few medicines, but, after some months, growing weary of the pipe, he left it off, and soon after his breast filled again, as was evident by the sound and fluctuation of the water. A second operation was designed, but nature made a way for it herself and relieved him (c).

### S E C T. III. *Dropfy of the ABDOMEN,* *or ASCITES.*

Hist. 6. A man had his belly swelled and extended to a prodigious degree, was grown so weak and breathed so short, that he was thought to be expiring. In his extremity he

(c) Willis de Pectoris Hydrope, p. 229, 230, &c.

he was ordered to take three grains of elaterium, and to repeat it twice more, interposing one day betwixt each of the two doses. This he did, and perfectly recovered from his Dropsy (*d*).

By Elaterium.

Hist. 7. A woman, who was thought past recovery in an Ascites, was cured by taking bolusses made of gutta gamba from twelve to twenty grains, with one drop of oil of cinnamon, and as much syrup of buckthorn as would bring it to a proper consistency (*e*).

By gutta gamba.

Hist. 8. Dr. Strother assures us, that he has cured several persons of Dropsies, by giving them a drachm or two of rhubarb in an opening decoction every three or four days. Scholtzius in his epistles gives a remarkable history of a person that was cured of a Dropsy, by taking every day as much rhubarb, as would keep his body open (*f*). Matt. de Gradi says, that one of the dukes of Milan was cured of this distemper, by taking two drachms of the troches of rhubarb

By rhubarb.

(*d*) Sir R. Blackmore on the Dropsy, p. 67. Et-mull. op. Med. p. 300.

(*e*) Willis de Ascit. p. 273.

(*f*) Marcell. Donat. de Med. Histor. Mirab. p. 422.

barb twice a week: and Michael Paschalius cured another by the same method (*g*).

By fena  
and butcher's  
broom.

Hist. 9. A poor man, very far gone in an Ascites, was cured of it by taking a decoction of butcher's broom, and purging two or three times with a simple infusion of fena. This was done not by the advice of a learned physician, but of a poor country-woman (*b*).

Extract of  
spurge.

Hist. 10. A person was cured of an Ascites by taking a drachm of the extract of spurge, dissolved in about five ounces of whey. This was only taken three times, at the distance of as many days (*i*).

This author was very successful in the cure of this as well as many other distempers. This extract was his favourite medicine; and as he delighted in simple ones, it does not appear, that he made use of above two more in his practice upon this distemper.

Sal prunelle.

Hist. 11. Riverius mentions a person that was cured of an Ascites, by taking sal prunelle in every thing that he drank, for a month together (*k*).

Hist.

(*g*) River. Prax. Med. p. 201.

(*b*) River. Obs. 52. Cent. 3.

(*i*) M. Ruland. op. Med. cent. 4 cur. 14.

(*k*) River. op. Med. p. 582. Obs. 2.



Hist. 12. In Holland and Germany they have a way of preserving cabbage, by laying it with salt in a proper vessel, stratum super stratum. A woman near seventy years of age, who had been afflicted with an Ascites for a long time, by the advice of a woman in the neighbourhood, drank of this pickle heated. She was confined to her bed, and by this means sweat much, and made large quantities of urine, which entirely carried off the disorder (*l*).

By the liquor of pickled cabbage.

Hist. 13. A man being very hot in the summer-time, drank some cold water; whereupon his belly swelled immediately to a great degree. He was advised to take the juice of centaury, which grew plentifully in the fields thereabout. This he did, and the next night made a great quantity of water, and had thirty stools; which entirely took away the tumor (*m*).

By the juice of centaury.

Hist. 14. A countryman, who had taken a great number of medicines for an Ascites, but to no purpose, was at last ordered to eat garlic every day, seeing he had no fever. This caused him to make a great deal of urine. It also purged him, and

By eating of garlic.

fo

(*l*) Th. Bon. Med. Sept. Collat. p. 719.

(*m*) Ibid. p. 721.

so restored him to a perfect state of health (*n*).

By the  
juice of  
garlic.

Hist. 15. A woman, whose legs and belly were both swelled to a great degree, was cured by drinking the juice of garlic in broth, by the advice of an old woman. Many more instances of persons that have been cured by this root, may be met with in Bartholine's observations (*o*).

By juice  
of par-  
sley, &c.

Hist. 16. A poor woman twenty-five years of age, being ill of a Dropsy, by the advice and direction of an old woman, took a handful of parsley leaves, wrapped them up in a napkin, put hot coals under them, and then beat them in a mortar, pouring upon them a sufficient quantity of white wine to fetch out the juice by pressure to the quantity of a glass full. This she took every morning for a month, and in it the bones of a certain animal dried in the sun and reduced to powder. By this means she was perfectly recovered (*p*).

By juice  
of plan-  
tain.

Hist. 17. An old woman cured a Dropsy by giving him the juice of plaintain boiled

was

(*n*) P. Forest. Obs. 27. p. 237.

(*o*) Cent. 1. Hist. 74.

(*p*) River. Op. Med. Obs. 5. p. 571.

in a jug till it was reduced to half the quantity for many days together ( $q$ ).

T. Bonnet cured one of his own children of an Ascites with the juice of dandelion, by which plant many others have found relief in this disorder.

By juice  
of dande-  
lion.

Hist. 18. Etmuller greatly commends ground ivy and wormwood in the cure of a dropfy; and says, that a woman, left off by her physicians as incurable, was recovered from this distemper by drinking the juice of iris, and applying the leaves of ground-ivy to her legs.

Ground  
ivy, and  
worm-  
wood.

Juice of  
iris.

Hist. 19. Forestus tells us of a woman that was cured of an Anasarca by a looseness (*r*); and also of a barber's wife, who by drinking spring-water, contrary to the advice and desire of her husband and physicians, fell into a looseness in two days after, and voided a great quantity of black blood by the hæmorrhoids, and by this means was entirely cured of her Dropsy.

By a  
looseness.

From  
spring wa-  
ter.

Hist. 20. A vintner, a free liver, fell into a jaundice; and then, as the usual stage is, into an Ascites. He was prodigiously  
M swelled

(q) River. Prax. Med. p. 209.

(r) Obs. 31. p. 245. and Obs. 27. p. 238. This last history is taken from Langius, Epist. 12. Lib. 2.

swelled all over, belly, back, sides, thighs, and legs, infomuch that he was given over by the physicians. In this condition he was carried to Sadler's Wells at Islington, where labouring under an inextinguishable thirst, he with much difficulty prevailed upon his wife to let him drink as much of those waters as he could, for then he said he should die well satisfied that she loved him. Between four o'clock in the afternoon, and nine or ten at night, he drank fourteen quarts of water; but made not one drop in all that time. Then he sunk down in his chair, broke out into a cold clammy sweat, and all that were about him looked upon him to be dead. He was then laid upon the bed, and in half an hour's time, there was heard a small rattling noise, like that of a coach on a distant gravel-way, and soon after he began to piss. In an hour's time he made seven or eight quarts of water, and had two or three stools. Then he began to speak, and desired some warm sack, which they gave him. After this he fell into a profound sleep, in which he both sweat, and dribbled his urine all that night. The next day he drank four or five quarts more of the same water, and had two stools,

By spring  
water.

stools, thin and watery. He pissed on, and drank on, more or less for five or six days together, taking all that while nothing for food but thin mutton broth, and sometimes a little sack; and by this means he perfectly recovered (*s*).

Hist. 21. One James Crook, a poor man, fifty-six years of age, was cured of a Dropsy, jaundice, palsy, rheumatic pains, and an inveterate old pain in his back of six years standing, by only going three times into the cold bath. This made him piss much more than he drank, and likewise made him discharge from his nose a great quantity of bilious, yellow matter. Now though the cure of the Dropsy, says our author, may be accounted for, yet how the icteric matter should be thrown off by the nose, whoever will tell me that, erit mihi magnus Apollo (*t*).

By cold  
bathing.

Hist. 22. One Mergone, a fisherman, near Mantua, whose belly was prodigiously swelled, was entirely cured of it by constant

M 2

and

(*s*) Dr. Baynard and Sir John Floyer's Hist. of cold bathing, p. 458. See a like case in Langius's Epistles, tom. 2. ep. 12. and another in Ruland, Op. Med. cent. 4. cur. 97.

(*t*) See Baynard and Floyer's Hist. of, &c. p. 217.



and hard labour, without the least assistance from any kind of medicines (*u*).

By a toad. Hist. 23. A woman at Rome, whose husband had long laboured under a Dropsy, and had spent most of his substance in medicines, was resolved to poison him. Upon this, she dries a toad, reduces it to powder, and gives it him in his drink. This made him make a great quantity of water, and cured him, contrary to her expectation (*v*).

By a fall. Hist. 24. A woman, whose belly was very much distended with water, by chance fell down; whereupon she voided a large quantity of urine immediately, and in twenty-four hours she discharged seven gallons this way. Hereupon she became exceeding faint; but was refreshed by Spanish wine, jelly of hartshorn, and confection of alkermes, and continued well above a year (*w*).

Hist. 25. A man that was dropfical all over from head to toe, who had taken many medicines, by the advice of physicians, to no purpose, and who was given over by them

(*u*) J. Schenk. Obs. Med. lib. 3. p. 418.

(*v*) *ibid.* p. 420.

(*w*) Strother's Pharmac. Pract. p. 8. Th. Bon. Med. Sept. Collat. p. 641, 642. See also Holler, Scholiograph. ad. c. 39. de Morb. internis.

them all, went to sea, where he vomited very much. After this he used exercise, and so was perfectly cured (*x*).

By going to sea.

Franciscus de Saviis mentions a dropfical person, who was seized with a spontaneous vomiting twice, and so discharged the whole quantity of water which caused the dropfical tumor in his belly (*y*).

Hist. 26. A gentlewoman was cured of an Anasarca by applying bladders filled with hot water to the bottoms of her feet, and under her arms. This made her sweat profusely. Then she fell into a looseness, which continued eight days, and in a month's time she was perfectly recovered (*z*).

By sweating with hot water outwardly.

Hist. 27. Langius, Lipsius, and Marcellus Donatus do each of them mention a countryman, who being ill of a Dropsy, went into a Baker's oven whilst it was hot, and by this means sweat away the disease (*a*); and Mangetus (*b*) from Albrechtus gives a history of a woman, who had an Ascites that would not yield to medicines,

In a baker's oven.

M 3

and

(*x*) P. Forest. Obs. 32. p. 246.

(*y*) Marcell. Donat. de Med. Histor. mirab. p. 424.

(*z*) T. Bonnet's Med. Sept. Collat. p. 720.

(*a*) Etmull. Op. Med. p. 301. Marcell. Donat. de Med. Hist. Mirab. p. 426.

(*b*) Biblioth. Med. vol. 1. p. 66.

With fear.

and therefore the paracentesis only remaining to be tried, was proposed to her, which so affrighted her, that she began to sweat in the hypochondria, and continued by fits to do so, till the water which distended her belly was entirely consumed.

With opium.

Hist. 28. A gentleman who, for violent nocturnal pains that afflicted him, was allowed opium once a week, fell at length into an Ascites and Anasarca. He was soon swelled to that degree, that he was not able to turn himself in his bed. He was extremely averse to all kind of medicines except opium. The case being looked upon as desperate, he was allowed to take this as often, and as much as he pleased. He took it every day, and constantly increased the dose; so that it is hardly to be believed how much he took of this medicine in a short time. His thirst hereupon abated; he sweat profusely every night; made a great quantity of urine; and in a month's time, lost all his swelling, was freed from his pains, had a good stomach, and was able to walk abroad (c).

Hist.

(c) Willis Pharmac. rational. p. 301, 302. Wallæus says (Method. Medend. p. 314.) Hydropici unius grani Opii exhibitione moriuntur, but how true may be seen by this history.

Hist. 29. A man of thirty laboured under an Anasarca, and was swelled from head to foot, so that he became blind. As he was beginning a course of medicines, he was seized with an hæmorrhage at the right nostril, whereby he lost above four pound of blood. This cured his Dropsy; but because he would not take medicines, his blindness continued (*d*).

By an hæmorrhage.

Hist. 30. A woman, of twenty years of age, was cured of an Ascites by tapping. She wore a leaden canula three months, whereby the remains of the water being all discharged, she recovered a good state of health (*e*).

By tapping.

Hist. 31. A countryman was cured of an Ascites, by an incision made in his belly, out of which fifteen jugs of water were taken. A. Nuck, in his Adenographia curiosa, quotes this history from Pechelin.

By incision.

Hist. 32. A fisherman, being ill of a Dropsy and epilepsy, and often convulsed, was at length cured by an abscess that was formed in the scrotum and thighs. Et-muller quotes this history from Wallonius.

By an abscess.

M 4

Hist.

(*d*) Fabrit. Hild. Obs. 50. cent. 1.

(*e*) A. Nuck Adenograph. curios. p. 123.

Hist. 33. A young man of twenty, by irregular living, and drinking water, contracted an ill habit of body, and at length fell into an Anasarca. This was entirely carried off by five abscesses, formed in different parts of his body, which discharged more than thirteen pound of purulent matter (*f*).

By an accident.

Hist. 34. A woman was so ill of an Ascites that her life was despaired of. She threw herself from a high place down to the ground; when her belly hit against a stone, burst, and discharged all the water contained in it (*g*). This history is so remarkable, that both Forestus and Skenkius have transcribed it into their collections. The author is somewhat particular in his expressions, for he calls the distemper Aqua inter Cutem, which name is generally given to the Anasarca; and the part which burst he says was the uterus, though both the other authors say it was the belly. Savonarola and Paschalius make mention of such another accidental cure.

Hist.

(*f*) T. Bonnet's Med. Sept. collat. p. 736.

(*g*) Beneven. de Abdit. Morbor. Caus. c. 109. See Th. Ficus, Tract. 6. p. 85. and Marcell. Donat. de Med. Hist. mirab. p. 425.



Hist. 35. A man of forty, after a tertian ague fell into an Ascites. His belly swelled to a marvellous size, and his navel grew as big as a goose egg. This at length burst, ran for three months, and entirely carried off the dropfical humour (*b*). A boy who was given over by his physicians, as dying of a Dropsy, drank a vast quantity of spring water, which burst his navel, whereby he was perfectly recovered (*i*).

By the  
navel's  
bursting!

Hist. 36. An old gentleman, sixty-three years of age, and a young woman of twenty-four, both of them labouring under an Ascites, and troubled with such a shortness of breath, that they could hardly go across the room, were cured by pricking the veins at the end of the ring finger, by the persuasion of a surgeon, after deobstruent, purging and diuretic medicines had proved ineffectual (*k*).

By prick-  
ing the  
ends of  
the ring  
finger.

Hist. 37. A man at Paris, who was afflicted with a Dropsy, had a burning coal fell upon

By a  
burn.

(*b*) Fabrit. Hildan. Obs. 47. cent. 1. See also Wiseman's Surg. vol. 1. p. 202. P. Forest. Obs. 27, 33, &c. River. Obs. 82. cent. 4. T. Bonnet's Med. Sept. collat. p. 701, &c.

(*i*) See Hecksteter. Obs. Med. Caf. 10. Decad. 2.

(*k*) Fabrit. Hild. Obs. 41. & 92. cent. 6. J. Schenk. Obs. Med. lib. 3.

upon one of his legs as he was sitting by the fire. This raised a blister, whereby the dropfical humour was discharged, and the man restored to a perfect state of health (*l*).

Hist. 38. Marcellus Donatus (*m*) mentions a young woman, his father's patient, who laboured under a suppression of urine, and want of stools, upon which a tumor of the belly succeeded. About twenty days after a citron-coloured water, very fetid, to the quantity of two quarts a day, oozed out through the pores of the skin below the navel, which kept her alive many months.

By the  
pores of  
the skin.

Hist. 39. A man, after a quartan ague, fell into a Dropsy. Asclepiades commanded him to fast two days. On the third he was freed from both the fever and Dropsy; so that he allowed him meat and wine (*n*).

By ab-  
staining  
from  
drink.

Since the time of Asclepiades many persons have been cured by the same method; and more by abstaining from all sorts of drink for a considerable time together. A nobleman of Piedmont (*o*) and an English

(*l*) T. Bonnet's Med. Sept. collat. p. 641. See Schenk. supra.

(*m*) De Med. Histor. mirab. p. 689.

(*n*) C. Celsus, lib. 3. c. 21.

(*o*) Fabr. Hild. Obs. 41. cent. 4. See M. Lister's Hist. 17.

lish apothecary (*p*) were both cured of an Ascites by drinking nothing for thirty days; Sir Samuel Ongle (*p*) drank nothing for some months; the countess of Falaix (*q*), and the countryman, mentioned by Benevinius (*r*), drank nothing for a whole year; and were all perfectly recovered; whereof some, especially the countess, lived to a very great age.

Hist. 40. A girl of eight years of age, was cured of an Ascites in two months time, by a conserve of raisins. They were boiled to a pulp in white wine, and then passed through a sieve (*s*). By raisins.

Hist. 41. Valeriola cured a man of an Ascites, by a decoction of guaiacum, which he made him drink for forty days together (*t*); and Olaus Borricius cured another, by the same method, when all the symptoms were of the very worst kind. The upper parts of the body were extremely emaciated, By guaiacum.

(*p*) Dr. Allen's Synop. Med. p. 310, 311. from Van Helmont.

(*q*) T. Bonnet's Med. Sept. collat. p. 718.

(*r*) De Abdit. Morbor. Caus. cap. 13. See more such histories in P. Forest. Obs. 27. p. 237. Al. Masfar. p. 192. River. Op. Med. Obs. 21. p. 570, &c.

(*s*) River. Obs. 44. cent. 4.

(*t*) Ibid. Prax. Med. p. 203.

emaciated, the appetite entirely lost, and there was little or no evacuation, either by stool, or urine. He could seldom get any sleep, and at the same time had a vomiting of blood upon him, which sometimes amounted to a pint at a time. All these disorders were entirely removed, by a decoction of guaiacum and saffraſas (*u*). I was lately with a gentlewoman, who was ill of an Aſcites. One of her neighbours told her ſhe had been cured of that diſtemper, by taking a tea-ſpoonful of the tincture of guaiacum in a glaſs of rum, two or three times a day. It was tried by my patient, but without ſucceſs, though it worked well both by ſtool and urine.

By larks.

Hiſt. 42. Nic. Florentinus (*v*) gives a hiſtory of a man and two women who were cured of a Dropſy, by eating larks that fed upon parſley, together with ſome biſket, a little wine, and a powder made of cinnamon, and other ſpices. This is a very ſtrange kind of cure, inſomuch that Gatenaria ſays he can hardly believe it to be true (*w*).

Hiſt.

(*u*) Aët. Med. Hafnienſ. vol. 1.

(*v*) Serm. 5. c. 25.

(*w*) P. Foreſt. Obſ. 36. p. 256. Marcell. Donat. de Med. Hiſt. mir. p. 421.



Hist. 43. A person was cured of a Dropsy, by taking a decoction made of the extremities of oak boughs every morning for fifteen days together (x).

By a decoction of oak.

Hist. 44. Avicenna tells us of a woman that was cured of an Ascites by eating an incredible quantity of pomegranate seeds.

By pomegranate seeds.

Hist. 45. One John Stranger, of Bononia, about fifty years of age, of a thin hectic habit of body, which frequently threatened a consumption, at length fell into a Dropsy. He entirely cured himself of it, by eating pepper for a long time together in large quantities (y).

By pepper.

Hist. 46. Many persons have been cured of Dropsies by heating white pebble stones red hot, cooling them in white wine, and drinking a glass of it every morning (z).

By pebble stones in white wine.

Hist. 47. The virtues of linseed in pleurisy, coughs, consumptions, &c. are well known to every apothecary ; but few have experienced the benefits of it in an Ascites : yet Bonnet (a) gives two histories of patients, one of which was perfectly cured, the other for some time relieved in this disorder,

By linseed oil.

(x) River. Op. Med. p. 582. Obs. 9.

(y) J. Schenk. Obs. Med. lib. 2.

(z) River. Op. Med. p. 581. Obs. 8.

(a) Med. Sept. collat. p. 72.



order, by a distillation of this oil given in drops.

By squa-  
ma æris.

Hist. 48. Baesdorpheus cured the emperor Charles the fifth of an Ascites, after other medicines had proved ineffectual, with squama æris (*b*).

By sack.

Hist. 49. A dropfical person who was given over by his physicians, understanding that wine was good for him, took such an aversion to water, that he not only drank, but boiled his meat, washed his hands, face, and all his body for a long time together in sack, and recovered (*c*).

By new  
milk.

Hist. 50. A noble lady, sixty years of age, labouring under an Ascites, which was attended with violent pains, was advised to make use of a bath of new milk. This she tried, which gave her ease; but in a short time it was turned to a perfect cheese curd; so that her servants were forced to cut it from about her body, and she had much ado to escape with life (*d*). Whether the sweat, or perspirable matter, of all dropfical persons is attended with this acid quality,

(*b*) P. Forest. Obs. 37. p. 257.

(*c*) Al. Massar. p. 192. Marcell. Donat. de Med. Histor. mirab. p. 422.

(*d*) Act. Med. Hafnienf. vol. 4.

quality, may perhaps deserve the enquiry of the learned.

Hist. 51. Fabr. Hildanus (e) mentions an old man of seventy, who after a tertian ague fell into an Ascites, which was perfectly carried off by some purging medicines, and drinking his own urine every morning, for the space of four months together. By urine.

#### S E C T. IV. *Observations on the foregoing Histories.*

From the foregoing histories it is evident, that all sorts of Dropsies may sometimes be cured by one or more of these five ways. 1.  
Dropsies  
how curable in general.

1st, by vomiting: 2d, by purging: 3d, by increasing the quantity of urine: 4th, by sweat: 5th, by wounds made in the skin, or flesh. Nature frequently relieves herself by some one or more of the four first, and so not only prevents this, but other distempers falling upon us; and when they are actually formed, often cures them in this manner. After her example, art has found out medicines to ease us when she is overpowered, and is not able to free herself from the burthen. Artificial wounds are of Five ways.

different

(e) Obs. 51. cent. 3.

different kinds. Some are made by instruments, and others by topical applications. Of the first sort are tapping, and incisions made in the legs and other parts of the body: of the latter are all such as are made by cauteries, whether actual, potential, or blisters. But whichever of these ways are made choice of, we should always be sure to begin with it as soon as possible, and before the distemper has got to too great a head; for the observation of Persius (*f*) is undeniably true in all, but more especially in this dangerous disorder; “*Helleborum frustra cùm jam cutis ægra tumebit, poscentes videas. Venienti occurrere morbo.*”

<sup>2.</sup>  
None of  
them cer-  
tain.

Though from these histories it is certain that Dropsies have sometimes been cured by the means related above, yet we must not expect to meet with the same success at all times. There are too many histories recorded in books, and too many that are fresh in our own memories, of such persons as have tried every thing that could be thought of in this case, without success. Believe me, at present there is no method, or medicine to be met with that is infallible in this distemper. No, the number of specifics is

at

at present very small. When our countryman Dr. Sydenham had given relief two or three times in an Ascites by syrup of buckthorn, as he himself informs us, he was apt to imagine that this medicine would always be of the same service; but he was soon convinced of his mistake, by the loss of his patient, and hazard of his reputation. As the honesty and good-nature of this great man is sufficiently evident in this account which he has left us, from it we may learn three things at least: first, not to be too fond of a medicine in any case; or at least not to be so attached to it as not to change it, when we find it does not answer our expectation: secondly, not to persevere too long in any method, where we find it does not succeed; for though, according to Seneca (g), nothing hinders the recovery of our health so much as the frequent change of medicines, yet we should not always depend upon one, though never so great a favourite. Here lies the great and essential difference between a rational and regular physician and a quack. The former knows how to alter his medicines in time, and the latter goes on in the same

N. road,

(g) Epist. 2.



road, from the first seizure to the death of his patient. Thirdly, that a few trials are not sufficient to give any medicine the name or character of a specific: long experience can only do this. How many have we seen and heard of lately that have been cried up for infallible, that would not stand the test, though protected by the greatest professors?

3.  
Bandage  
necessary.

Bandage has sometimes been of great service, when young children have been dropical in the head; but it may, perhaps, bear a dispute whether the like method may be proper in anasarcaous swellings of the legs. The great objection to this kind of practice is drawn from the hazard the patient runs of having the lymph, or watery humour, by this means forced upwards, and so fixed upon some of those more noble parts that are immediately necessary to life. This might, perhaps, sometimes be the case, if no evacuation was to be used at the time of such bandage; but cannot, I think, where that is not wanting: and yet to give objection its full force, if we suppose no evacuation to be made, the humour would most certainly have an equal, if not a better chance to pass off either by stool, urine, or perspi-



perspiration, than to fix upon any such part. Laced stockings, therefore, have been deservedly recommended in this disorder, by Mr. Wiseman and others; and the success has frequently, and does daily, answer the prescriber's expectations.

It is surprising to find how small and insignificant a thing will sometimes give relief, when the greatest and most approved medicines have failed. What the Greeks called idiosyncrasy, or a particular constitution, we meet with in almost every day's practice. Who could imagine that an electuary of raisins, a decoction of oak-buds, or a little juice of plantain, should cure the most inveterate Ascites, if history had not furnished us with such examples? There is nothing, I am sure, in the nature of any of these medicines, that seems adequate to such a stubborn disorder. How often do we hear of great cures performed by some trifling insignificant thing, advised by some poor illiterate old woman, when great and learned physicians have pronounced the case incurable? Hence we may also learn, not to adhere too closely to a favourite medicine, when we find it does not relieve. Variety of medicines may and ought to be tried,

4.  
Trifling  
medicines  
cure stub-  
born dis-  
orders.

Simple  
medicines  
recom-  
mended.

and no case should be given over as lost, so long as life remains ; but then the medicines made use of should be simple ones. There are two great objections against the compounding of medicines, at least against a great number of ingredients. 1st, When a cure is performed by such a one, who can tell which ingredient to ascribe it to ? 2d, Though the several ingredients may all be very proper in themselves, yet who knows they shall be so when thus mixed together ? Pliny, in his Natural History, book 22. chap. 23. says, the reason why he only treated of simple medicines was, because in these it appeared what nature could do ; but in mixtures there was nothing but uncertain conjecture ; for the agreement and disagreement of nature cannot be sufficiently known to any one in mixtures : and Ronseius de Scorbuto, p. 19, says, that the more simple medicines are, the more powerfully they are wont to exert their virtue and efficacy. Acids, we know, ferment with alkalies, and when that fermentation is over, they acquire a very different nature from what each of them had before. From tye flower and allum a phosphorus may be prepared, that shall take fire by only expo-  
sing

sing it to the air, a property which neither of the ingredients have when alone. Filings of steel and sulphur mixed together, will become actually hot, and break out into a flame, by dropping cold water upon them; and burnt marble or lime will become hot after the same manner. Since this is the case, how careful ought we to be in making use of compound medicines in extemporaneous practice? Who knows when several things have been mixed, and stood long together, what new properties they may acquire, or what effect they may have on a human body? He that prescribes the fewest and most simple medicines will always be looked upon as the best physician. Bleeding is at length found to be the only true cure of all kinds of inflammation, especially of a pleurisy; Bristol water for a diabetes, and the Jesuits bark for an ague, hæmorrhage, and mortification. Dr. Sydenham deserves more from mankind for teaching us the use of riding on horseback, in some kind of consumptions; of spirits of vitriol and diacodium in the small-pox; and of spirits of hartshorn in the convulsions of young children; than if he had left us whole volumes of elaborate prescrip-

tions. Sir John Floyer and Dr. Baynard gained no small reputation by restoring the use of cold bathing. Dr. Radcliffe did more with the testacea, than others could do by all the most costly drugs of the Indies. Water and mercury, if rightly managed, will really do wonders in the Dropsy, and happy would it be for mankind, could a simple specific be found out for this, as there has been for some other distempers; but this I fear, from the nature of it, and what has been said above, is not at present to be expected.

5.  
Of spring  
water,

The cure of the vintner (Hist. 20.) is one of the most remarkable that was ever effected in this or perhaps any other distemper. Sir John Baynard says he knows not how to account for it, and therefore thinks it must remain among the occulta till the last day. “ So much water,” says he, “ drank so  
“ suddenly, one would have thought, should  
“ have totally extinguished the natural heat,  
“ already too low, weak and languid. Be-  
“ sides, there is no property in water that  
“ we know of, whereby it should take away  
“ a hard scirrhus liver, or restore a decayed  
“ and rotten omentum, or any other of the  
“ viscera, sodden and stewed in claret and  
“ other



“ other fermented liquors to the destruction  
 “ of their tone and texture.” A great part  
 of what is here advanced by the doctor is  
 indisputably true; and therefore for me to  
 attempt a solution of this difficulty, would  
 be looked upon as presumption; otherwise  
 we might suppose, that few or none of the  
 lymphatics were broken; that the juices,  
 which were extremely viscid, were atten-  
 uated by the great quantity of water,  
 which he poured down in so short a time,  
 and so were fitted to pass off quick, by all  
 the emunctories of the body, the intestines,  
 ureters, and skin; and lastly, that the great  
 weight and pressure being once removed,  
 nature repaired the breach, as we see she  
 frequently does in ulcers of the lungs, blad-  
 der, and other parts of the body, where  
 we cannot come to apply medicines. Be  
 this as it will, the use I would make of  
 this history is, that there is a possibility of  
 curing the most desperate Dropsy by spring-  
 water. This is directly contrary to Dr. Sy-  
 denham’s theory and practice in this dis-  
 temper. Here he absolutely forbids every  
 thing small, as supposing the blood too poor  
 and thin, which is frequently otherwise, as  
 we have already proved. If the causes of

in the  
 cure of a  
 Dropsy.



disorders, and this aphorism of Hippocrates, that contraries cure contraries, are to be regarded, I am sure water must do more in the cure of this distemper than wine. Where one disorder of this kind now-a-days comes from too low living, thousands, I fear, come from excess; but of this more hereafter. Another use to be made of this history is, that simple medicines, and such as seem no way adequate to the distemper, will sometimes succeed beyond all the rules of art, and the strongest demonstrations (*b*). Providence, I have often thought, has thus ordained it, to confound the wisdom of this world, and to make the man of reason know how small his knowledge is, and yet how great his pride and vanity.

6.  
Tapping,  
when use-  
ful.

From these histories it plainly appears, that Dropsies of all kinds may sometimes be cured by one kind or other of evacuation. So long as the water is contained in the lymphatics, medicines may be of service: when these are burst, the water has sometimes been discharged by tapping, by the bursting of the navel, or by some kind of wounds made in a proper part of the body. When any fluid of a human body has been  
long

(*b*) See Obs. 4. above.

long out of the vessels, wherein it used to circulate, I do not think it possible by any means to be brought back again into them, but must by a proper instrument be let out. After inflammations, where matter is once formed, the thing is plain to the meanest capacity. With regard to the lymphatics, I think, the case is pretty much the same.

It is certain there are absorbing vessels in a human body, by which some particles of matter may be admitted into the mass of blood from without; but then I think they must be exceeding fine, fluid and perfectly free from viscosity. The lymph immediately thickens by the heat of the body, when once cut of its proper vessels, so that little or none can possibly be carried off this way. I doubt not but there are some vapours constantly betwixt the foldings of the guts, in the cavity of the abdomen, which are as constantly carried off this way, either by the bladder or some other part; but whenever these come to be too viscid and large for these kind of outlets, they must there remain, till let out by a proper instrument.

Abso-  
rbing vessels  
in a hu-  
man body,

Mr. Petit (*i*) has made an experiment, which leaves

(*i*) Treatise of the Diseases of the Bones, P. 1. ch. 16. p. 189. See also Philos. Trans. abr. vol. 3. p. 78. where is a like experiment by Dr. William Musgrave.

leaves no room for doubt in the case. He says, If a gallon of warm water be injected into the abdomen of a living dog, and the wound be closed for two hours, and then opened, that one drop of the injected water will not be discharged at the wound. Whence it is evident, 1st, that not only in this, but all other cavities of the body, where any liquid is separated for lubricating the parts, and making their motion easy, the superfluous parts of such liquid, must by some absorbing vessels, where there is no manifest outlet, be reconveyed into the mass of blood and humours. 2d, That this superfluity may sometimes, by heat of the body or other means, become too gross to pass off by the usual way, and must therefore occasion Dropsies and other disorders of the part. 3d, That no stimulating medicines can be of any service in a Dropsy, where the lymphatics are broken. All cathartic, diuretic, diaphoretic and other kind of medicines, can be of no service in this case. As all these act with a stimulus, increase the circulation of the blood, and make an evacuation, they must consequently weaken, and are therefore at such times so far from doing good, that they must of necessity

No stimulating medicines good when the lymphatics are burst.

cessity do harm. Hence it is we so often hear of the sudden death of dropical persons, after strong purges given by some unskilful hand. Let me, therefore, lay it down as a truth to be remembered, by every judicious practitioner, and in every part of this treatise, that after the lymphatics are once burst, no forcing medicines of any kind are to be given in this distemper.

C H A P.

## C H A P. VII.

*Of the cure of a Dropsy by internal Means.*

HAVING in the foregoing chapter shewn all the ways whereby it is possible to cure a Dropsy, I shall here treat of each of them more at large, and also shall produce the most effectual remedies for this purpose. Before I do this, it may not perhaps be improper to say a word or two concerning the operation of medicines in general, and the way to ease thirst, which is frequently a most troublesome companion in this distemper.

S E C T. I. *Several Ways to ease Thirst.*

Dr. Sydenham says small liquors increase thirst (*k*) in this disease, and therefore advises

(*k*) This precept, I think, is only founded upon poetry: Ovid says in this case, Quo plus sunt potæ, plus sitiuntur aquæ; and Horace,

Crescit indulgens sibi dirus Hydrops,  
Nec sitim pellit, nisi causa morbi  
Fugerit venis & aquosus albo,  
Corpore languor.



vifes to gargle the mouth with *sp. vitriol*, to hold tamarinds in it, or chew a lemon; but not to swallow any of them for fear of their coldness. This caution, I think, By acids. might better have been spared, than mentioned on this occasion; for cooling things can do but little injury, where persons are burnt up with internal heat. Tamarinds purge as well as cool, and all acids, of what kind soever, help to thin viscid, fizy humours, and fit them for secretion. Small punch is a most powerful diuretic; so is *elix. vitriol*, the *sp. vitriol* here mentioned, and all the preparations of nitre, sulphur, &c. but sure those medicines that provoke urine can never do harm in a Dropsy. Nay these kind of medicines have opened the obstructed kidneys, and cured a suppression of urine, when all others have proved ineffectual (1).

M. Lister in his seventeenth case says, By bread dipped in spirits of wine. the woman he there speaks of was advised, but not by him, for her great thirst, to hold upon her tongue, once a day, or oftner, a little thin bit of bread, well toasted, and dipped in spirits of wine, to make her spit; which

(1) *Philos. Trans. abridg. vol. 3. p. 148. and Fuller's Haustus diureticus acidus.*

which she did, and it answered her expectation.

By green tea. Wainwright, in his treatise on the non-naturals, recommends green tea, steeped in rhenish wine, which is both a diuretic and strengthens the stomach at the same time.

By nitre. Sir Theod. Mayerne, Etmuller, and others, advise the preparations of nitre, which by the by are much colder than the acids Dr. Sydenham cautions us so strongly against. The lapis or sal prunellæ, both of the London and Scotch Dispensatory, the Sp. nitri dulcis, Fuller's decoctum coccineum, and the decoctum nitrosum in the Edinburgh Dispensatory, are all excellent medicines for this purpose.

Mayerne likewise advises the patient to hold a drachm of the following medicine in his mouth now and then, ad fitim fallendam.

R. mucilag. sem. psyl. & cydon. extract: in aq. ros. rub. ℥ij. sacch. cand. ℥ijj. sp. vitriol. gtt. 3. m. f. mucilago.

By sp. of sulphur. Van. Helmont says, a few drops of Sp. of sulphur will sooner allay thirst than some quarts of water; and spirits of vitriol may deserve the same encomium.

By chewing mastick. Fernelius recommends the chewing of mastick or such like things, which he says  
do

do not only draw water from the head, but from the stomach also and abdomen; and Riverius is of the same opinion.

C. Celsus tells us, that one Metrodorus, <sup>By vomit-  
ing</sup> a disciple of Epicurus, laboured under a Dropsy; and that not being able to bear such an intolerable thirst, he abstained from liquids as long as he was able, and then drank till he vomited (*m*). Hereupon the author makes this seasonable observation, That it is true by this means the disease may more easily be endured; but if any of the liquid is retained in the stomach, it will increase the disorder, and is therefore of opinion, that this method should not be tried in every constitution.

*Proved  
by leaf. Hall  
Case. I. I.*

## S E C T. II. *Of Medicines in general.*

It is very apparent, that there is but one canal or passage from the mouth to the anus; the anatomists divide it into several imaginary parts. In some places it is much wider, thicker, and fuller of wrinkles, than it is in others. All medicines taken in at the mouth must be considered as they act immediately upon this tube; or as they affect the fluids and solids of the whole body, after

(*m*) C. Celsus, Lib. 3. c. 21.

after they are taken up by the lacteals, and by them have been conveyed into the mass of blood.

An emetic, what.

Every thing that acts so powerfully upon the first part of the canal, or stomach, as to invert its natural motion, and cause it to throw up its contents, is called an emetic or vomit. If it passes over the pylorus without disordering the stomach; if it increases the peristaltic or vermicular motion of the guts, and so makes the excrements pass off quicker than usual by the anus; we then give it the name of a cathartic or purge: lastly, a medicine, that is entirely, or for the greatest part, conveyed into the mass of blood, without affecting this first passage, receives different names as it acts more immediately upon this or that part of the body. If the pores of the skin are the seat of action, it is named a diaphoretic medicine; if the urinary passages, a diuretic, &c.

A diaphoretic.

A diuretic.

Observations.

From these definitions it follows, 1<sup>st</sup>, that emetics and cathartics are, or may be, the same kind of medicines; that they only differ in degrees of strength; that an emetic may be reduced to a cathartic, and, vice versa, a cathartic may be increased to an emetic



emetic sometimes, the former by diminishing, and the latter by augmenting the quantity of the medicine. Hence we may easily see how a vomit frequently gives a motion to stool, and a purge often gives a puke or two, before or during its operation. 2d, That every medicine which passes the lacteals, must affect the whole mass of blood, and therefore must act upon other parts of the body, as well as that from whence it takes its name: 3d, That diuretic, diaphoretic, &c. medicines, which are generally taken up by the lacteals, may sometimes become cathartic or emetic. Thus diaphoretic antimony, if it has lain long exposed to the air, will, in pretty strong constitutions, excite vomiting, as Zwelfer and Boyle have observed; and all diuretics, in weak ones, will frequently purge, as I have often found by experience. 4th, That all those medicines which pass by the lacteals into the mass of blood, must be extremely uncertain in their operation, since they must affect other parts of the body, besides that which is principally designed. 5th, That not only the foregoing, but every medicine in general, unless exactly proportioned to the constitution, and other circumstances, may,



may often must, increase other secretions, besides that which we principally have in view. Thus emetics often give stools, and provoke sweat; cathartics often vomit, provoke urine, sweat, &c. But to be somewhat more particular.

Emetics, as we observed, excite a motion of the stomach directly contrary to nature. The diaphragm, muscles of the belly and breast, are all forced to assist in this operation. These kind of medicines act very briskly upon the nervous coat of the stomach, and there cause a convulsion. There is not much time during the operation of a vomit, for many of its particles to pass the lacteals; nay, I think it next to impossible that any of them should, since the bowels are so very compressed by the muscles of the belly, every time there is a convulsion of the stomach. The sweats, therefore, that are occasioned by vomits, are not owing to their acting upon the whole mass of blood, but to the convulsive motion of the nerves, the sickness and faintness of the patient, and the great relaxation, caused, first, by the warm liquor drank in the operation; and second, by the nausea from the medicine so disagreeable to the stomach. Mr. Chirac, a physician

Sweat in  
vomiting,  
whence.

physician at Montpelier, would make us believe, the force of the muscles employed in the action of vomiting are at least equal to two hundred and sixty thousand pound weight. If so, no one I think should wonder at the sweats which are caused by these kind of medicines: the greater wonder is, how any man is able to support such a burden, without immediate destruction of the whole machine (*u*).

What has been said of the profuse deliquious sweats occasioned by vomits is equally true of those caused by strong purges. However this be, it is most certain, that such rough medicines as these ought not to be given without great caution and circumspection; for if they do not give relief, they must certainly do harm, being too active not to affect the constitution some way or other. When the juices are become too viscid, and the fibres too much relaxed, so that the circulation cannot be carried on in the capillary, or most minute vessels, emetics and rough purges must certainly do admirable service. They not only unload the obstructed vessels, but by their velle-

O 2

the

(*n*) See Dr. Cheney's Theory of Fevers, p. 89.

the weakened fibres. On the other hand, where any fluid of a human body is extravasated, as it is impossible by any art to bring it back again into its proper vessels, so it must be extremely ridiculous to attempt to do it by these violent methods. If the patient should have the good fortune to survive the operation, yet it must doubtless bring him much nearer to the grave. This case we often meet with, when these kinds of medicines are injudiciously administered by quacks and other bold pretenders, as we before observed.

Of specific  
purges.

The ancients were of opinion, that some sort of purges were more proper than others in particular diseases. Accordingly some they called cholagogues, others phlegmagogues, and some hydragogues, according as they were thought to carry off choler, phlegm, or water. Dr. James Keil (*o*), thinks he has made this doctrine of the ancients probable at least, from abstracted reasoning and mechanic principles; but Quincy (*p*) demonstrates, from the same principles, that there can be no specific purges; but that all cathartics of the same strength will be equally

(*o*) Tentam. Med. Phys. p. 112.

(*p*) Pharm. p. 177.

equally serviceable in all cases. From these two gentlemen we may plainly see, what certainty is to be expected from mathematical demonstrations, as they are called, when applied to the operation of medicines, the cause and origin of diseases, &c. If we may be allowed to judge of medicines by the smell, taste, &c. one would make no scruple to assert positively, that there might be such things as specific cathartics. We find as great a difference in the sensible qualities of these kinds of medicines, as there can possibly be in the humours of a man's body; so that we may fairly from hence assert the possibility of such kind of medicines. Besides, we daily see dropical persons, that have tried several sorts of cathartics, at last relieved by one which is not seemingly so strong as some that they have before taken; and hence, as I have elsewhere observed, it is certain we ought not in this distemper to stick too closely to any one medicine, especially of the purging kind.

It is surprising to see what vast quantities of water, or aqueous humours, are sometimes discharged by stool in dropical cases. Many authors have attempted, but few have given, any tolerable account of this phænomenon.

What quantity of water may be discharged by a dose of purging physic.



By the intestinal glands.

Peyerus and Brunner in the last century discovered an innumerable number of small glands all along the tube of the intestines, whose excretory ducts open into this great canal. Whether they are as numerous as those of the skin, or whether their excretory ducts are of the same diameter with them, is not yet exactly determined. There are also other large ones, which discharge their contents immediately into this canal; viz. the liver, pancreas, &c. Dr. J. Keil (*q*) says that the bile is discharged into the intestines at the rate of two drachms an hour at the least. Mr. Cheselden (*r*) ingenuously confesses, that he knows no way of computing with any exactness, what quantity of bile is thus secreted by the liver in a given time; but supposes it may be four times as much as all the salival glands secrete in the same time, or twenty-four ounces at every meal; and that the pancreas in the same time discharges three ounces. From these two large ducts he supposes the large separations made from the blood by cathartics, may better be accounted for, than from the foregoing glands, which are scarce visible,

Without

(*q*) Tentam. Med. Phys. p. 98.

(*r*) Anatom. p. 158. ch. 5.



Without doubt, both the greater and the lesser glands are forced by cathartics to part with their contents, much quicker than they do in a natural state. If the skin of a man's body contains two thousand six hundred and forty square inches, the guts will contain one thousand four hundred and forty, or more than half as many, according to Dr. Friend (s). Suppose then, a cathartic of the strongest kind was to act all along the bowels, as a blister does upon the skin; that the discharges made by both, from a given part should in a given time be equal; that strong cathartics act four times quicker than blisters; and lastly, that a blister five inches square would, in a given time, discharge an ounce of serum: hence it would follow, that in a fourth part of the same time a strong cathartic would discharge at least four pound of matter, for the whole skin, if blistered, would discharge about nine.

By them  
all.

Secondly, Suppose the particles of a cathartic should pass the lacteals, and mix with the blood and juices, they must certainly increase the circulation, thin these fluids, and dilate the mouths of all the excretory ducts of the great canal. If the

O 4 again

(s) Comment. on Hippocr. de Morb. Epidem. page 125, 126.

diameter of these vessels becomes as wide again as in a natural state. Dr. Friend (s) has proved that, by this dilatation only, about four pound and a half of serum, would be evacuated in eight hours time, without taking the pancreatic juice into the account.

3. Lastly, suppose a strong cathartic should act both these ways, which is more than probable it does, a gallon of serum may then possibly be discharged by stool, in the common time a purge is in working. If the mouths of these vessels should become wider in any other proportion, the quantity of matter discharged would be increased according to the squares of the diameters of these vessels; and hence it is apparent, how great a quantity of humours may possibly be discharged by strong cathartics in a little time.

It is generally supposed by all kind of writers, that rough purges, during the time of their operation, pass the lacteals, and so mixing with the chyle and blood, occasion fermentations, rarefactions, &c. whereby they remove obstructions in every even the remotest part of the body; but that the more gentle ones act only upon the grand canal,

(s) Ibid. Comment. on Hippocr.

canal, or first passages. This doctrine, I think, has no foundation in nature, nay, is directly contrary to matter of fact. Every one knows, that the longer any liquid is in passing from the mouth to the anus, the more of its finest particles may, nay must, be taken up by the lacteal vessels ; and consequently, the more gentle any purging medicine is in its operation, the more of it must be conveyed into the blood. In common practice we daily see great alterations follow the repetition of purging medicines in small quantities for several days together. Rhubarb is so slow a worker, that I have often seen it in the urine, before it has given a stool ; and we have an extraordinary instance below (*t*), where cassia, taken thus two or three days together, caused a prodigious flux of urine. Calomel we find is not so apt upon taking cold to raise a salivation when given with gutta gamba, jalap, scammony, &c. as when mixed with conserve of roses or diascordium, and kept in the body all night. Good reason, then, had Dr. Friend (*u*) to say, that when we give mercurial purges, in order to remove obstructions,

(*t*) See Dr. Cheney's new Theory of Fevers, p. 98.

(*u*) Emmenolog. p. 111.

obstructions, the number of stools, or quantity of matter discharged per anum, is very little to be regarded; because the efficacy of the medicine will be as great, if not greater, where this visible evacuation is inconsiderable. The case being as it is here represented, how shall we be able to account for the operation of rough purges in making so great an evacuation in a short time? I answer, very easily. As these medicines must act with a stimulus, the quicker they pass through us, the more frequently must the excretory ducts of the glands in the intestines be opened. The juices then running off so quick per anum, an inverted circulation of the juices must follow. The motion which before was from the bowels to the skin, will now be turned from the skin to the bowels. When, therefore, obstructions and humours are carried off thus, it must be by revulsion; but when they mix with the blood, they act as real deobstruents, and rarifying the viscid juices fit them to pass off by all the other glands of the body. From this explanation of the operation of medicines, many useful doctrines, with regard to practice, follow: 1st, The danger in giving rough purges will be directly

rectly as the times in which they pass through the intestines. 2d, The danger in giving strong vomits will be to that of rough purges, supposing they act equally in the same time, as the length of the stomach is to that of all the intestines; and if the times in which they act are unequal, this danger must be in a compound ratio of the length of the parts they act upon directly, and their respective times of action. 3d, Rough purges, in acute distempers, must be exceeding dangerous, unless they be given at the very beginning; since the foregoing ratio must be increased by that of the time since the obstruction began inversely, or the viscosity of the blood and juices. In fevers, then, these kind of medicines must often do harm, viz. if they invert the circulation of the juices, and throw too great a quantity upon the bowels. 4th, The roughest purgers, when given in small quantities, must be the most powerful deobstruents, and so less dangerous than when given in a larger. 5th, The sweats caused by rough vomits and purges can give no relief, since they are not the effect of the medicine in the cuticular glands, but of  
too



too great evacuation, a nausea and sickness, or too great an expence of animal spirits.

### S E C T. III. *The Cure of Dropsies.*

1. By vomits.

The ancients say little about vomits, especially those of the rougher kind, in the cure of a Dropsy. Themison began the cure of an Ascites with a vomit of squills or hellebore, and ordered it to be repeated three times in a (v) month. C. Celsus says, if the belly swells with pain, it is necessary to vomit every day, or every other day, after dinner. Here I suppose this author must be understood of such mild emetics only, as occasion the stomach to part with its contents easily, and so take away that fulness and distention so troublesome to the patient.

Weak ones recommended.

Many approve of gentle vomits at the beginning of a Dropsy, both before and after meat, but forbid strong ones, for they weaken very greatly (w).

Hercules (x), the Saxon, suspects strong vomits; for 1st, If they do not succeed, the peritonæum, he says, may be broken:

2d, The

(v) C. Aurel. p. 490.

(w) P. Forest. Obs. 32. p. 248. and Marcell. Donat. de Med. Hist. mirab. p. 424.

(x) Prælect. p. 203.

2d, The force of the water upwards may endanger suffocation; and Nicolas Florentinus (*y*) mentions one who died by this operation.

Barbette (*z*) disapproves of strong vomits in this disorder, for these following reasons: 1st, They disturb the sick, and make them fainty: 2d, They weaken the stomach, so that it never after digests its food as it ought. This he had often observed, and concludes thus, Let other men do as they please, for my part, I neither love nor order them.

Strong  
ones re-  
jected.

Sir Theod. Mayerne (*a*) condemns rough vomits in this distemper, especially those made of stibium and says, When the stomach nauseates what it takes, so as to require a vomit, it should not be stronger than some preparation of vitriol, or the ripe seeds of the greater cataputia, made with almonds into the form of an emulsion.

Etmuller (*b*), however, is of opinion, that weak vomits will not work upon drop-fical persons, either because of the atonia or weakness of the stomach, or else because  
the

Appro-  
ved.

(*y*) Serm. 5. ch. 15.

(*a*) Ibid. p. 285.

(*z*) Prax. Med. p. 163.

(*b*) Op. Med. p. 299.

the medicines are altered, and fixed as it were by the falso-acid ferofities contained therein; and therefore they ought, he fays, to be ftrong, and given in a large dofe.

This author is the firft who recommends ftrong vomits, and his reasons for fo doing are here produced; which in my opinion are very indifferent ones. For many people in Dropfies are very much inclined of themfelves to vomit; fo that warm water alone is fufficient to bring up the contents of the ftomach. Metrodorus, as we obferved above from Celfus, cured his thirft and his Dropfy, by abftaining as long as he could from all forts of liquids, and then drinking a fufficient quantity of any liquor to make him vomit; but he does not fo much as hint that he made ufe of any medicine in this diforder to procure the defired effect.

Dr. Sydenham, I fuppofe, from the foregoing authority, recommends, and is extremely pleafed with an infufion of crocus metallorum, commonly called vinum benedictum, given to  $\text{ʒifs}$ , or  $\text{ʒjj}$ , every morning, as the ftrength of the patient will allow. He relates a hiftory of a poor woman to whom he gave fix dofes at leaft of this his favourite medicine, without doing her any manner

manner of service, as far as I am able to judge. For he confesses, that by this means the vapours were raised in her to a very great degree, and that he could not make a cure of her till he had recourse to such purges as are accounted specifics in dropfical disorders.

This method has found but little encouragement among the learned, as being, I suppose too rough, and seldom or never giving relief. Dr. Sydenham himself, to do him justice, seems to have been convinced of his error in being too fond of this medicine, as well as syrup of buckthorn; for in his *Processus Integri*, which was written at the latter end of his days for the instruction of his own son, he does not so much as mention this kind of evacuation in the cure of a Dropsy, which he surely would, if he had found it so necessary as he once apprehended it to be. The great Boerhave indeed says, Aphor. 1245, that the vomits made use of in this distemper should be strong and often repeated. But as he gives no reason for this practice, nor any history of cures wrought by it, we may look upon it as a *gratis dictum*, supported only by his own great name, and that of Etmüller and Sydenham. Rejected.

Sydenham. If I may be allowed to speak in this controversy, I must say, that neither in my reading or practice, did I ever meet with a dropfical case, which was cured by strong emetics ; but have sometimes known them do harm.

Forestus tells us of a person that was cured of a Dropsy by vomiting ; but then medicines had no hand in it, for this was only caused by the ship's motion, the patient having been advised to go to sea. Very justly, therefore, in my opinion, does M. Lister disapprove this way of proceeding by strong vomits, for these following reasons : 1st, Because that great practitioner Sir Theod. Mayerne, as we before observed, condemned rough vomits ; and I think I may safely add, that all the antient and many modern physicians do the same. 2d, These kind of medicines increase thirst, and occasion the patient to drink too much. 3d, Such an operation must with great difficulty be undergone by persons so short breathed as those generally are who are much swelled with a Dropsy. 4th, More water may be discharged by stool than can possibly be carried off by this method. 5th, To these give me leave to  
add



add a fifth, which is the great danger there must be of bursting the lymphatics and other vessels, too much already stuffed with viscid and fizy humours. Fabr. Hildanus (*d*) gives us a history of a girl that was killed by a dose of crocus metallorum in powder, the omentum being burst in the lower part of it by the violence of the operation; of a woman who lost her hearing, by a dose of vinum benedictum; and of another who became a fool, after a strong vomit given her by an empiric: so that with good reason he bids us be cautious in giving strong vomits in cachectic and dropical cases.

I myself knew a colonel of the army, who had a jaundice, Ascites, anasarcaous swellings of the legs, &c. for which he was advised to take some oxymel of squills. He was in all appearance, when he took it, as well as he had been for some days before; he bore the operation well, and seemed relieved, but died suddenly in less than an hour's time. There was about a gallon of water found in his belly.

P

Riverius

(*d*) Obs. 79. Cent. 4. See also his Works, p. 914. where a man was killed by such a dose.

Riverius says, that in Dropsies of the womb women should be vomited twice a week ; but he does not say what kind of medicines should be used, whether rough ones, or those that are more mild and gentle in their operation.

Oxymel  
of squills.

For my own part, I never durst give any stronger emetic in a Dropsy than oxymel of squills. This is a safe and good medicine, and may frequently be repeated without doing any damage to the stomach, provided the lymphatics are not burst. It powerfully attenuates tough viscid humours, and fits them to pass off by the glands of the kidneys, and all the other emunctories of the body, when given in so small a quantity, or so guarded, as to pass out of the stomach without much irritation. In Dropsies of the breast especially, it does admirable service ; and relieves a Dyspnæa more effectually than most other medicines.

A man by taking only six drachms of it mixed with small cinnamon water, by a little at a time, pissed six quarts in four and twenty hours, when he had made but very little water for a long time before. In this manner it is often given with extraordinary success.

When

When given as an emetic, it does not leave that nausea and sickness at the stomach after the operation, as some rougher medicines generally do.

The vinum scilliticum is of the same nature; and the pulp of squills, made up with sapo and gum ammoniacum, either into pills or boluses, has often done admirable service.

#### S E C T. IV. *Of Purges.*

The works of the ancients abound with precepts about purging in a Dropsy; and many of them were of opinion that a cure could not be obtained by any other method. All Dropsies, says Al. Trallian, are to be cured by beginning with evacuations; but the Ascites and Tympanites by purging only.

A looseness cures a Leucophlegmacy, says Hippocrates. This proposition is often repeated in his works; but in his Coaca we are told, that such a one must not take away the appetite; for it is most certain a Dropsy always increases when this declines. Purging medicines ought to be given, says the same author, till all the water of a Dropsy is entirely discharged (*e*).

P 2

Upon

(*e*) De Affect. Sect. 5. p. 546.

Upon this assertion Dr. Sydenham, I suppose, founds this general precept concerning the cure of a Dropsy : Where the strength of the patient will allow it, purge every day, or every other day, till all the water is carried off; for otherwise the patient will fill again betwixt the purges, and so we shall get no ground of the disorder.

A caution  
about  
their use.

If the belly falls upon purging, there is hopes of a cure; but if it swells after this evacuation, and but little water is brought away by urine, death ought to be expected (*f*). So that purges may often do more harm than good in this obstinate disorder.

This observation Hollerius, myself, and many others, have often found true by experience; and it is so considerable a one, that I think it ought never to be out of the mind of every practitioner.

Another.

I have always found where brisk purges give great pain in the small of the back, as if they were forcing a passage through the kidneys, yet cause little or no secretion of urine, that we may be certain the lymphatics are already burst, and that consequently this method ought not to be pursued any farther.

farther. When the case is thus, I believe we may certainly pronounce it incurable; for wherever I have observed this pain to be violent, and, as some have expressed it, like as if the back was breaking, water has always, upon dissection, been found in the cavity of the abdomen.

Unless purges, therefore, open the urinary passages, as well as occasion stools, they do more harm than good very frequently; for the belly is apt to swell after them, and the patient grows worse. I knew an old gentleman, says Dwight, de Hydrope, who laboured under a Dropsy. He made water pretty freely all along, till he fell into a diarrhœa; upon which his urine ceased; but that being overcome by medicines, this returned. After three days the looseness came on again, and the urine abated as before; but he was a second time relieved by the same method; so that purging sometimes obstructs the urinary passages.

A diarrhœa stops the urine.

Etmuller tells us, that we ought in a Dropsy to give purges in the wain of the moon; for this disease, continues he, observes the increase and decrease of this heavenly body.

Purges when to be given.

Lindanus,



Of strong  
purgues.

Lindanus, Etmuller, and several others, are positive that we should not purge often in a Dropsy, and tell us, when we give these kind of medicines they should always be of the brisker sort.

Riverius says, that strong purges should not be used in this disorder too often, according to Galen ; for they weaken the body, and so occasion the water to increase.

Dr. Sydenham says, that such purges as work slowly and weakly, do more harm than good in Dropsies ; and yet in the very same page he says, regard must be had to the nature of the patient, when we give purges in this disorder ; and that we ought to learn from him whether he was easy or hard to be worked when in health, for fear of an hypercatharsis. These precepts certainly contradict one another, for if weak purges do harm, we have no occasion to consult the patient how he was to be worked before the disease began, since strong ones only can relieve him ; nor is the fear of an hypercatharsis so much to be regarded, so long as we have a medicine so infallible in this case as opium, and its several preparations, as he himself observes in the next page following.

J. Fer-

Succus  
ebuli.

J. Fernelius is very cautious in giving strong purges, and is positive that the succus ebuli may be given to weak persons and pregnant women; but that the rest of the hydragogues ought not to be administered to children, old people, or pregnant women; nor to those that are emaciated, are of a bilious constitution, have a fever, or any other acute disease; nor in a hot season; and then he concludes, that these sort of rough medicines are only proper for strong persons, and such as are afflicted with cold and chronical disorders.

Much of the same opinion is Dr. Turner in his art of surgery, where he says, If the bowels are corrupted by the stagnating serum; the liver scirrhus; the patient advanced in years, or reduced by a long and chronical sickness; his heat and appetite destroyed; and his spirits not so much eclipsed, as absolutely exhausted; the more you purge with strong cathartics, the more you hasten the sick man's destruction.

Strother says, that Wallæus and many others are of opinion, that no sort of purges do good in an Ascites. If they mean when the water is extravasated, I entirely agree with them; for no relief can possibly be

had in this case, but by tapping. But if the water be supposed to have distended the vessels only, this kind of evacuation must be absolutely necessary. From the histories in chap II. and VI. we may easily see, how vastly the belly, and all the parts of the body, may be swelled without a rupture of any kind of vessels; so that we are not immediately, upon sight of a dropical belly, to conclude that the water is out of the vessels of circulation, and so forbear trying rough purges and other medicines, though we may seemingly have but little reason to expect success from them; for many persons have been recovered of this disease, when the best physicians have pronounced them incurable.

Of gentle  
ones.

The ancients generally began the cure of this distemper with gentle purges and deobstruent medicines, and so proceeded to the stronger cathartics. Al. Trallian says, It is better to discharge the water by little and little, than by being over hasty, to carry off the patient with the disease. J. Ferrius and P. Forestus cry up rhubarb, as the only specific purge in a Dropsy, and will hardly allow of any rougher medicine. Ad. Occo tell us of a man who was cured of a  
Dropsy

Rhubarb.

Dropſy by the conſtant uſe of it. He began with drachms, but roſe by degees to ounces and pounds. Many years after, a ſervant cut his throat, but he recovered of the wound, and imputed it to the great quantities which he had taken of this medicine (g).

The troches of rhubarb are alſo much commended by many authors in this diſtemper, particularly by Matt. de Gradi, as is before obſerved.

The ancients made uſe of ſeveral medicines, both ſimple and compound, in this diſeaſe; which I ſhall only mention, becauſe either the things which now go under the ſame name are not what they were in their time, or elſe by long experience they have been found, not to answer the character which they have given them. Such are the ſquama, flos & ærugo æris, lapis cæruleus, Armenius, ſeu lazuli, veratrum album, &c.

Whether it is poſſible there ſhould be ſuch a thing as a ſpecific purging medicine, we have

A ſpecific  
purge,  
what.

(g) J. Schenk. Obſ. Med. lib. 3. p. 429. This hiſtory is quoted alſo by Montanus, Crato, and many other good authors, as a thing whoſe truth was not in the leaſt to be doubted.

have already seen at page 196. M. Lister however, allows of six medicines, which may be called such with respect to this disease; viz. elatorium, succus ebuli, succus iridis, bryonia alba, euphorbium, and gutta gamba. These, he says, are the only ones which deserve this name, and that they have all the properties of a specific; which he says are, 1st, To attenuate viscid humours, digest and bring away water, opening the excretory vessels by its own proper and most powerful stimulus: 2d, to defend the bowels from inflammation, i. e. to warm them without inflammation: 3d, to astringe, strengthen and restore them to their former tone: 4th, to heal ulcers, &c. To these six I think may be added, jalap, buckthorn, spurge, and mercury, each of which by experience have very often been found to be equally serviceable, in this disease, with any of those before-named.

1. Of jalap.

Of jalap: This root most powerfully purges off water, or watry humours. Mr. Bolduc has proved, that it is better give the root itself, than any preparation of it, though never so laborious or artificial. Poor people generally take as much of it as will lie upon  
a shil-



a shilling, mixed with a little ginger in some white wine ; Sydenham gives it thus :

R. Rad. jalap. pulv.  $\mathfrak{zj}$   $\mathfrak{zz}$ .  $\mathfrak{ss}$ . fyrup. de spin. cerv.  $\mathfrak{zj}$ . vin. alb.  $\mathfrak{zjv}$ . m. f. potio, to be taken every morning according to the strength of the patient. This medicine, with a very small alteration, is the potio purgans hydropica in Fuller's Pharmacopœia.

About a third part of calomel, mixed with this root, makes as good a purge, as any the whole materia medica can possibly yield. It works without griping, and, if rightly proportioned to the strength of the patient, will make as good a discharge as is proper at one time. We love variety now-a-days in every thing ; otherwise this mixture would supply the place of many more costly compositions, and answer the end of the prescriber much better, with regard to his patient's health and recovery.

The resin and tincture of this root are the only preparation now in use ; the former is a brisk, rough purger, and may be given from three grains to half a drachm, and is best corrected by salt of tartar, sugar, or the yolk of an egg ; but is seldom given alone, being chiefly used to quicken other purging medicines. A few grains of sal  
succini

fuccini makes the operation of this medicine much brisker ; but it makes it so very brittle, as not to be made into pills without difficulty. The tincture is a better medicine, and much more frequently prescribed. Fuller makes it with tinct. sal. tartar. and calls it *essentia uterina* ; the Scotch with brandy ; and Boerhaave says, *R. Tinct. jalap & syrup e spin. cerv. aa ʒiʒs.* which is an excellent purge in dropfical cases.

2. Me-  
choacan.

As jalap is sometimes called black mechoacan ; so this plant has frequently the name of white jalap. Their natures, and purging qualities are very much alike, only the latter is somewhat weaker than the former. Many authors, and especially Sennertus, are very fond of mechoacan in dropfical disorders, and prefer it to jalap ; but as they are so very near akin, I shall only mention a medicine, which Mr. Boyle says, is an admirable one for a Dropsy. Take an ounce and a half of mechoacan sliced ; infuse it twenty-four hours in a pint of white wine, and take a glass of it every morning, for some days. If a little mustard-seed is infused along with it, the medicine will still be more powerful.

There

There are two sorts of elder; sambucus, 3. Elder. or the common elder, of which Matthiolus makes two kinds; and ebulus, or dwarf-elder; their qualities are pretty much the same, and each of them are very often given with success in Dropsies. Of the former of these, we sometimes keep a syrup, and spirit, in the shops; but if we believe Quincy, neither of them can do much service in this disease; for a pint of the juice he says, may be taken many days together. Dr. Sydenham tells us, and he has authority as well as experience on his side, that this plant will purge both upwards and downwards, as well as *crocus metallorum*. He gives thus, R. Cort. inferior. sambuc. a ligno deraf. manip. .j. .j. .j. aq. font. & lact. vaccin.  $\overline{aa}$   $\overline{bb}$ . coq. ad dimid. One half of this, he says, should be drank every morning, and the other half every evening, till the patient recovers. P. Forestus (*b*) says, if the bark be plucked upwards it vomits, but if downwards it purges. J. Fernelius (*i*) assures us, contrary to Matthiolus, and what is here said, that this bark loses its purging quality by being boiled. The juice of the root, or inward bark, of dwarf-elder may be given to an ounce,

(*b*) Obs. 37.(*i*) Method. Med. p. 818.

ounce, or  $\text{ss}$  according to Sennertus. The seeds or grains of both elders given in powder to  $\text{zj}$ . very kindly purge watery humours by stool, says Dr. Willis; and Quincy assures us, that the inward bark of the ebulus is a powerful diuretic. Mr. Turnefort, in his Mater. Med. says, that emulsions made of elder-seeds purge more powerfully than the infusion of them, because the greater part of the oil is contained therein.

4. Gamboge.

Gamboge, the inspissated juice of India spurge (*k*), wonderfully brings away the waters of dropfical persons by stool. It sometimes vomits, but more seldom if it be given with aromatics, or be rubbed with *sp. salis*, or *sp. vitriol*. It may be given, according to Sennertus, to twelve grains. Quincy and Willis say, it is best corrected by lixivious salts, as salt of tartar, &c. and that it may be given to a scruple at a dose. Poor people take it frequently by itself, to  $\text{zss}$  or more at a time, without any preparation or detriment. Lindanus, and from him Etmuller, cautions us against the use of it; because it is apt to inflame the lungs. Hoffman (*l*) calls it a most noxious gum, and seriously dissuades  
all

(*k*) Hoffman Conf. Med. vol. 1. cas. 93.

(*l*) Hoffm. Conf. Med. vol. 2. p. 314.

all good men from the use of it. I have very frequently given it, but never found it disorder the lungs. It is true indeed I have sometimes observed, from the use of it, a breaking out upon the skin in red spots, like a rash, or the spots in some kinds of fevers; but they always disappeared without farther detriment. M. Lister, in order to correct its roughness, roasted and mixed it with six times as much sugar, and then made it into little cakes of a drachm apiece. Sometimes he dissolved it with the juice of lemons, and then with sugar made it into cakes as before. Nothing, however can better correct it than calomel: with this it may be made as powerful, and yet as gentle as you please. This mixture as it has no taste, is not only proper in this case, but full as good a medicine for children as the pulv. cornachini, pulvis basilicus, &c. and will much more easily be taken by them: but care must be taken not to continue the use of these strong medicines long, if they do not give relief, lest we kill the patient; a case that happens too often.

R. Gambog. a gr. 12 ad gr. 16. ol. junip. Pills  
g<sup>tt</sup> 2. mithrid. q s. f. pill. N<sup>o</sup>. 3. pro 1<sup>a</sup>.  
dosi. Fuller.

R. Gam-



Draught.

R. Gambog. gr. 15. vin. alb. & aq. cichor.  $\overline{aa}$   $\mathfrak{z}$ iss. syrup de spin. cerv.  $\mathfrak{z}$ ss. m. f. haustus. Sydenham.

Electuary.

R. Conf. absinth. Rom.  $\mathfrak{z}$ ij. gutt. gamb.  $\mathfrak{z}$ ij. spec. aromat. ros. ol. n. m. express.  $\overline{aa}$   $\mathfrak{z}$ j. syrup ros. sol.  $\mathfrak{z}$ ss. m. f. elect. This is the elect. hydropicum of Fuller. About  $\mathfrak{z}$ ijj. is a dose. The author says, if the conserve of common wormwood is made use of, the medicine will be exceeding disagreeable to the palate.

Draught.

R. Gambog. & crem. tart. pulv.  $\overline{aa}$  gr. 14, ol. junip.  $g^{\text{tt}}$  3, dissolve diligenter in mortario in vin. alb.  $\mathfrak{z}$ ijj. addendo sacch. alb.  $\mathfrak{z}$ iss m. This is the haustus hydragogus of the same author, and a good medicine.

Bolus.

R. Gambog. gr. 6. merc. dulc. gr. 15. conf. violar.  $\mathfrak{z}$ iss. m. f. bolus. Willis. Or, R. Gambog. gr. 15, crem. tart.  $\mathfrak{g}$ ss. syrup. e spin. cerv. q. s. f. bol. This some commend as much as Dr. Willis does a solution of it in the tincture of salt of tartar, which he says may be given from fifteen to thirty drops.

5. Flower  
de luce, or  
flag.

Iris cœlestis, seu nostras, or the common flower de luce, or flag. Dioscorides, and his commentator Matthiolus, speaks in much praise of this plant, to which they attribute

as many virtues as any one used in the whole art of physick. The former recommends it more particularly in coughs, the gripes, watchings, and obstructions of the menses; and the latter in the Dropsy, stone, tooth-ach, and as a most powerful sternutatory. Fallopius used it successfully in curing a gonorrhæa. There are several kinds of this plant, but all of them are pretty much of the same nature, for they purge briskly, and will bring away watry humours from the skin, and extreme parts of the body. The juice of the root may be given to ℥ij. ℥iij. vel ℥iv. according to Al. Massarius; but it is too sharp and hot to be given alone, for it burns the mouth, and gives pain, according to Sennertus. It ought therefore to be given in a proper vehicle, or mixed with other appropriate medicines. Etmuller thinks there is some specific alterative quality with respect to this disease contained in its acrid pungent taste; and says, the root, fresh cut, and infused in wine or whey, may be given to ℥iij. and the clear part of the juice, after it is settled, may be given to ℥vj. or ℥j. but that it loses its purging quality when boiled; and J. Fernelius is of the same opinion.

Q

R. Succ.

Syrnp.

R. Succ. irid. nostr. ℥j. aq. cinam. f. ℥iv. mag. gum. de peru. ℥i. macerentur in vase bene claus. hor. 24. Colatur, adde sacch. albiss. ℥j. spec. diarrhod. abbat. & rhab. opt. aa ℥ss. stantal. rub. & rad. anchus aa ℥jj. hæc in nodulo ligat. decoquantur, & f. syrupus, qui cum carioph. cinam. & mac. aa. ℥j. aromalizetur ut est artis.

This syrup is a process of A. Mynsineth, who says, that in Cachexies and Dropsies of all kinds it is a glorious cathartic, and of divine assistance; Dropsies having been cured by it, which would give way to no other medicine. Dos. ℥iss. vel ℥jj. twice or thrice a week.

Draught

1.

R. Succ. ebul. ℥i. succ. irid. nostr. ℥ss. elater. gr. 6. vel 9ss. m. f. potio. M. Lister.

2.

R. Succ. irid, ℥ijj. syrup. e spin. cerv. ℥i. m. A. Pitcairn.

3.

R. Succ. irid. ℥ijj. mann. calabrin. ℥iss. m. Al. Massar.

4.

R. Succ. irid. nostr. ℥iss. ℥jj. vel ℥ijj. vin. alb. ℥ijj. syrup. e spin. cerv. vel syrup. ros. sol. 3vj. m. f. Haust.

This medicine I frequently give in Dropsies, and have often found relief from it, when others have failed, both in the Ascites and Anasarca.

Elaterium,

Eläterium, or the inspissated juice of the wild cucumber. This medicine evacuates the water contained in the cavity of the abdomen, more happily than any other. Mesuë gave it from ten grains to twenty-two; but its dose must not be more than six grains, and it should be corrected with g. tragacanth, bdellium, psyllium, and cinnamon, according to Sennertus. It stimulates the fibres so powerfully, that it often brings away blood with the humours. The dose is from three to fifteen grains; but it should be corrected with aromatics, and other hydragogues, according to Willis. It is the most violent of any of the hydragogues, and should not be given to more than four or five grains; for few care to trust their reputation in its prescription, unless such empirics as have none to lose, says Quincy. Physicians we see are not agreed about the dose of this medicine. It is not long since a physician was tried at Venice for ordering a drachm of it for a woman, and was acquitted (*m*).

Indeed it is a thing impossible to say what is an exact dose of this, or any other purging medicine in all constitutions. Fallopius saw

Dose of medicines uncertain.

Q 2

a Ger-

(*m*) Al. Massariæ Op. Med.



a German eat an ounce of scammony, without having one motion to stool. I once gave an ounce of vinum benedictum to a woman, and at another time four ounces of tinctura sacra to a man, neither of which medicines caused the least sickness or evacuation. In the Philosophical Transactions, we have an account of one Mrs. Lovelock, who wanting sleep in a fever, took in the space of three days one hundred and two grains of London laudanum, three drachms of Venice treacle, and four ounces of diacodium, without causing the inclination to rest; and yet I knew a gentlewoman, who lost her life by taking ten grains of pil. matthei in a fit of the gravel, after a lying-in, by advice of her apothecary. Of what advantage then can Dr. Cockbourn's tables be to mankind, in which he pretends to fix the doses of purging and other medicines, to different ages and constitutions, by numbers, with the same certainty and exactness, as if he was giving an answer to a question in abstracted mathematics? Massarias never durst prescribe more than six grains of elaterium, and then always mixed it with more gentle purges. Yet for all this, Lindanus calls it a most noble medicine, and says, he believes that



that his father and he had cured an hundred persons of the Dropsy by this remedy. Heumius is positive, the water contained in the peritonæum, and abdomen, is only to be brought away by elaterium and euphorbium; these two medicines doing the same to the intestines, as sternutatories do to the nose. Dioscorides affirms, that this medicine forces stools without injuring the stomach: sal gemm. is its best corrector. This was the favourite medicine of M. Lister, and frequently given by him to ten grains at a time with success, when other things had proved ineffectual in this distemper.

R. Elater. gr. 3. jalap ʒj. syrup. violar. ʒj. Draught.  
aq. mirab. ʒ<sup>ss</sup>. m. This draught brought away nine quarts of water without much trouble. M. Lister.

R. Decoct. sen. gercon. ʒijj. syrup. e spin. 2.  
cerv. ʒ<sup>iss</sup>. succ. limon. ʒ<sup>ss</sup>. elater. gr. 4. m.  
M. Lister.

R. Elater. gr. 4. jalap ʒj. m. f. pulv. Powder.

R. Elater. ʒ<sup>ss</sup>. sal. gem. ʒj. miv. cydonior. Bolus.  
q. f. f. bolus. Willis.

R. Pill. alophang. ʒ<sup>ss</sup>. elater. ʒ<sup>ss</sup>. ol. cari- Pills.  
ophyl. gutt. 3. f. Pill. Willis.

R. Pill. ex duobus ʒj. elater. gr. 2. f. pill. 2.  
N<sup>o</sup>. 3. Sydenham.

Fallopious (*n*) had a particular way of giving this medicine to make Bath waters pass. If they did not pass the first or second day, he gave pill of euphorbium; if that did not answer then, R. Pill aloephang. ʒj. elater. gr. 2. m. f. pill. 1. hor. 1. ante cœnam sumend. and this he says, always had the desired effect.

7. Euphorbium.

Euphorbium. The antients made great use of this medicine as an hydragogue; but what we have now-a-days is so very violent in its operation, that it brings away the mucus of the bowels, and very often blood, though it be given in a small dose; so that Etmuller, with good reason, thinks what now goes under this name, is not the same medicine as was used formerly. We never give it inwardly, unless it be calcined; when it becomes a most powerful sudorific, as I have found by experience.

8. Buckthorn.

Rhamnus. Rhamnus catharticus, spina alba, spina cervina, spina infectoria, or buckthorn. Of this shrub no part is used, except the berries. From these we make a syrup, which Fuller calls syrupus domesticus, because no family ought to be without it. It is an uncertain purger, but sometimes brings  
away

(*n*) Fallop. Op. Med. p. 136, and 271.

away abundance of water. It does not hurry the blood, nor make the urine higher coloured, as other strong purges do, if we may believe Dr. Sydenham; only it very much increases the thirst during its operation: but in some constitutions it will hardly work at all, so that it is seldom given alone. This author having cured one Mrs. Saltmarsh of a Dropsy with this syrup, immediately concluded he had found out an universal, infallible medicine in this disorder; but he soon found himself deceived. For in another patient, trusting to this medicine only, he gave her several doses of it without success; when she, finding no relief, dismissed the doctor, and was cured by another person.

Bryonia alba, or white briony. The 9. Briony juice of the root of this plant is a very powerful purger of water, according to Helmont and others, though it is not now so much used as formerly. Dolæus, Tournefort, &c. have a particular way of gathering it in the spring, by cutting a hole in the root of it as it grows, then covering it up again, and so taking out the juice daily as it comes. Etmuller commends the juice thus gathered in the gout, and says, it does wonders in  
Q 4 this

this disorder : and Hartman (o) says, ℥vi. or vjij. with one of sp. vitriol. or ol. sulph. per campan. will keep well, and given by a spoonful at a time cures the asthma.

10. Spurge

Cataputia, or spurge. Of this there are two sorts, the major and minor, but both of them are of such a corrosive, caustic nature, that it is impossible for any one to take the leaves alone, though in small quantities; for they purge most violently both upwards and downwards. The seeds are the only part that can be used with safety, which being made with almonds into an emulsion, are the strongest vomit that ought to be given in a Dropsy, according to Sir Theod. Mayerne, as we before observed.

R. Cataput. min. ʒj. aloes succotrin. ʒiss. balsam. tolut. ʒij. cum spir. vitriol. g<sup>ss</sup>. 15. vel 20. f. pillulæ; dos. a gr. 12. ad. 25.

These are the Pillulæ Hydropicæ in the Pharmacop. Pauperum, which will, according to Mr. Banyer, be found of admirable use in Dropsies, especially in a robust constitution, where few things are to be found strong enough to conquer the disorder.

Besides

(o) Pract. Chymistr. p. 58.



Besides the foregoing vegetables, some others are recommended by authors, which being now seldom or never called for, I shall only give you the trouble of reading their names, viz. foldanella, mezereum, seu laurole, of which there are three sorts, daphnoides, thymalæa, & chamælæa, tithymalus, seu esula major & minor, elleborus albus, &c.

Argentum vivum, quicksilver, or mercury. There are several preparations of this mineral, which are much commended by chemists in this disease. Such are mercurius vitæ, arcanum corallinum, turpethum minerale, hercules bovi, &c. but they are all of them exceeding rough medicines, and ought not therefore to be administered, except it be by a skilful hand, and with great caution; for they stimulate the bowels most powerfully, and occasion vomiting by convulsing the stomach. However there is one preparation of mercury, which is of a more gentle nature, which M. Lister calls a divine remedy, and than which there is not in (p) all the Materia Medica any thing more powerful in attenuating viscid fizy humours, removing obstructions of all kinds, abating swellings in

II. Mercury.

(p) See River. Op. Med. Obs. 3. Cent. 4.



Calomel.

in every part of the body, &c. This is mercurius dulcis, aquila alba, cælestis, or calomel; which was first introduced into practice by Sir Theod. Mayerne, and works by vomit, stool, urine, sweat, or spittle, according to the dose, age, constitution of the patient; &c. In all chronical disorders, and in fevers likewise, this medicine does wonders, insomuch that few of them are to be cured without some of this at the beginning, at least not so quickly and safely. In the Dropsy (*q*), at the beginning especially, some look upon it as a specific; and I myself have often known it give relief, even beyond my expectation. But why do I go about to recommend a medicine so well known to every skilful practitioner; and which experience has taught us, may with safety be given to sucking children, as well as to those of the strongest constitutions, with equal success?

12. Silver.

Luna, argentum, or silver. Dr. Bates, in his Pharmacopœia, recommends two or three preparations of this mineral in dropfical disorders, viz. Luna potabilis, vitriolum, seu chrySTALLUM lunæ, & magisterium lunæ. From the last of these the pillulæ lunares of  
Dr.

(*q*) See Doringius's Epistle to Fab. Hildanus, Op. 897.

Dr. Willis are composed. These pills are mightily cried up by Mr. Boyle and Ettmuller, as a great specific in this disease. The recipe for these pills may be had in any of these three authors, so that I shall not transcribe it hither.

The lunar chrystals being prepared with nitre, require great exactness in the operation. When made as they should be, they will purge dropfical persons without griping pains, and kill all sorts of worms; but, for fear of their too caustic nature, they should be used with caution, being apt to corrode and destroy the appetite, for which the rhob. juniperi is a certain cure (*r*).

From the foregoing simples, and those that are hereafter to be mentioned under the several heads of diuretics, sudorifics, &c. many pompous forms of medicines have been formerly, and may still be composed, according to the ingenuity of the physician, the circumstances of the patient, &c. The forms of some of those, which have stood the test of experience, I shall here give my reader from several authors.

Compound  
medicines.

R. Ales

Pills.

R. Aloes opt.  $\text{ʒiiss}$ . gutt. gamb.  $\overline{\text{pp}}$ .  $\text{ʒifs}$ .  
 diagrid.  $\text{ʒj}$ . g. ammon.  $\text{ʒifs}$ . tart. vitriolat.  
 $\text{ʒfs}$ . m. f. mass. pillular. dos. a  $\text{ʒfs}$ . ad  $\text{ʒfs}$ .

R. Aloes succotr.  $\text{ʒjjj}$ . g. ammon. cum  
 aceto scillit. depurat.  $\text{ʒifs}$ . tart. vitriolat.  $\text{ʒfs}$ .  
 f. f. a mass. pill. dos. ad  $\text{ʒj}$ .

The latter of these are called pillulæ tartareæ, by Schroder, Bate, Quincy, the London and Edinburgh Dispensatories, and take their name from the last ingredient, of which there is only one grain in half a drachm, which is a common dose. Schroder and others from him say, they were the prescription of one Dr. Bont, who was physician to one of the princes of Orange; and that the Dutch had them so much in esteem, that they thought it a sin to make them publick. The same author says, they had two sorts of them, one being those here mentioned, and an extract of rhubarb was mixed with the other, on which account they had principally a regard to the liver; as also that one Peter de Spina made an addition of  $\text{ʒj}$ . of styrax to this mass, and so they were famous in his country. The quantity of the several ingredients continued the same in all authors where I have found them, till the  
 Edinburgh

Edenburgh Dispensatory reduced the g. ammon to one half, or six drachms.

R. Rhei. gutt. gamb. scammon refin. 2j. jalap. & calomel.  $\overline{aa}$  3ss. g. ammon. succ. irid. nostr. solut. 3ijj. tart. vitriol. 3ij. mastick. 3j. croc. 3j. spir. terebinth. g<sup>tt</sup>. 40. cum f. q. syrup. e spin. cervin. f. mass. pillul. dos. ab 3ss. ad 3j. fortioribus.

This is from Bate, and a better composition need not be made by any author.

R. Resin. jalap. 3ij. tart. vitriol. 3j. extract. rhubarb. 3ij. esulæ 3iss. rad. galang. min. 3j. conf. flor. iridis nostr. 3jv. cum f. q. syrup. e floribus persicar. f. elect. dos. a 3ss. ad 3jss. vel 3ij. Willis. Electuary.

R. Rhad. ebuli, irid. nostr.  $\overline{aa}$  3jss. fol. foldan. & gratiol.  $\overline{aa}$  mj. rad. asari & cucum. asinin.  $\overline{aa}$  3ij. rad. galang. min. 3vj. jalap. select. 3ss. elater. 3ijj. cubeb. 3ij. incis. & contus. affunde sp. vin. tenuior. tartaris 3ijj. digerantur clauso in furno arenæ per 2 dies. F. colatura clara, quæ per subsidentiam depurata detur a cochlear. 2. vel 3. cum vehiculo idoneo. Willis. Tincture.

R. Cort. ebuli, rad. irid. florent.  $\overline{aa}$  3ij. cort. intern. alni nigr. baccifer. fccat. 3iss. rad. enulæ camp. & scill.  $\overline{aa}$  3ss. bacc. junip. 3jss. rad. jalap. 3ss. helleb. nigr. 3ij. fol. fennæ Wine, &c.



fennæ ʒij. sal. absinth. ʒjv. vin. alb. ʒjv. di-  
gerantur frigide per aliquot dies, dein filtre-  
tur liquor.

2. R. Rad. irid. florent. ʒij. enul. scill. aa  
ʒss. cort. sambuc. & ebuli, aa ʒj. cort. win-  
ter. ʒij. fennæ ʒij. helleb. nigr. agaric. &  
jalap. aa ʒij. vin. alb. ʒjv. infund. frigide.

These two wines are both in Dr. Fuller's  
Pharmac. Extemp. under the names of vina  
hydropica. The former, he says, is an ex-  
cellent medicine for a Dropsy; and the latter  
he calls a most excellent one, having been  
tried a thousand times with success. The  
dose of each is ʒjv. in a morning fasting.

Of Glyf-  
ters.

Experience has taught us, that glysters  
are often serviceable in the cure of a Dropsy.  
They do not cause so much disorder in us  
as medicines taken by the mouth. The  
belly never swells after the use of them, and  
they frequently bring away great quantities  
of water both by stool and urine (s). Era-  
sistratus ordered simple glysters in this dis-  
order, or such as did not contain any thing  
sharp, or stimulating; but with what success  
C. Aurelianus does not inform us.

A glyf-

(s) Fabr. Hildanus says, above thirty pound of clear  
phlegm was brought from a lady in twenty days by  
glysters only, Op. p. 988.



A glyster, whose principal ingredient was the cortex ebuli, brought three quarts of water in twelve hours time, from a young gentleman who was ill of an asthma, hectic, Ascites and Anasarca (t).

R. Urinæ sani hominis, & vinum bibentis terebinth. venet. vitell. ovi. solut.  $\text{℥}$ iss. sal. prunell.  $\text{ʒ}$ iss. f. enema.

This Dr. Willis approves of best, and orders it to be repeated every day, but others make use of more powerful ingredients.

R. Urinæ human. matutin.  $\text{℥}$ viii. vin. benedict.  $\text{℥}$ iii. gutt. gamb. vin. hispan. solut.  $\text{ʒ}$ j. terebinth. venet. vitell. ovi solut.  $\text{ʒ}$ vi. ol. sassafras.  $\text{℥}$ ss. m. f. enema.

This is the enema hydropicum in Bates, and is a prescription of Sir Theod. Mayerne.

R. Flor. genist. & sambuc.  $\overline{\text{aa}}$  m. i. sem. cymini, & carui  $\overline{\text{aa}}$   $\text{℥}$ ss. coq. in feri lactis  $\text{℥}$ viii. colaturæ adde vini benedict.  $\text{℥}$ ij. ol. colocynth. & ol. cymen.  $\overline{\text{aa}}$   $\text{℥}$ ss. vitell. ovi N°. i. m. f. enema. Biblioth. Anatom.

R. Pulp. colocynth.  $\text{ʒ}$ j. infunde per noctem in vin. alb.  $\text{℥}$ iii. colaturæ adde decoct. intestin. nervicis  $\text{℥}$ j. olei com.  $\text{℥}$ ij. sal. petræ fusi  $\text{ʒ}$ j. aceti fort. cochlear. f. m. f. enema. Riverius.

In

(t) S. Dwight de Hydrope.

In giving glysters in this disorder, Paulus Ægineta says, If the belly be loose, we ought to make use of drying ingredients; but if the patient be costive, the medicines should be brisk and active.

### S E C T. V. *Of Diuretics.*

Urine,  
how much

Our urine, according to Hippocrates, Dr. Keil, and others, should daily equal, or at least come near to, the quantity of liquids which we drink. If a man in this climate eats and drinks about four pounds and a half, or seventy-four ounces, in twenty-four hours, five ounces of this will pass off by stool, according to the latter of these authors; thirty-one by insensible perspiration, and about thirty-eight by urine. From hence it is apparent how necessary it must be, both in preventing and curing a Dropsy, in this nation, to keep open the urinary passages, since they are so absolutely necessary in carrying off the ingesta. I said, in this nation, because Sanctorius found that, in Italy, this evacuation was not near so great as Dr. Keil observed it, by the same method, to be in England; and perhaps even here it may not exactly be the same, in both parts of Great Britain, nor in two experimenters whose constitutions

it

it is great odds differ much from one another.

It was for a long time a question in phyfic, Two sorts; whether there was not some other passage for the urine than that by the ureters into the bladder. Mr. Morin (*u*) affirms positively for reasons there given, that the urine consists of two sorts: 1st, That which passes immediately through the pores of the coats of the stomach and bladder; and 2d, That which by the circulation of the blood goes into the ureters, and so to the bladder. This Mr. Morgan, in his Philosoph. Princip. prop. 12. takes for a truth sufficiently demonstrated, and therefore divides the urine into two sorts, which he calls the first and second urines; but many persons require better proof of this matter; since those pores of the stomach and bladder are not to be discovered by the best glasses; since both of them hold water and air, when taken out of the body; and since the bladder and stomach are not contiguous, when in their natural situation; so that if we suppose a vapour to pass through the pores of the stomach, it must first fall into the cavity of the abdomen, before it could get into

R

the

(*u*) Philos. Transf. abr. vol. 4. part 2. p. 77.

the bladder, where it must be condensed ; nor could it pass into the bladder, unless we suppose the pores of it to be larger than those of the stomach (which does not yet appear.)

Glysters  
come a-  
way by  
the blad-  
der, of  
urine.

That there is sometimes an immediate communication betwixt the lower part of the guts and the bladder, is a thing that will admit of no dispute. A gentleman at Rome (*x*) had often glysters of warm water given him, which always came entirely away by the bladder, not so much as a drop coming by the anus. Benevenius (*y*) tells us, that a boy of twelve years of age had a suppression of urine for seven days, and that it came away at length by the anus, and so he recovered. A man of fifty, much subject to the stone, in a fit of it had a glyster given him, of broth and oil of sweet almonds, which stayed with him six hours, and then came all away by urine, the oil swimming on the top of it (*z*). The same happened lately to a young lady, who had such a glyster given her for the cholic.

Fabr.

(*x*) Bagliv. Med. Prax. p. 133. (*y*) De Abdit.  
Morbor. Causis, cap. 7. (*z*) Bagliv. Opuscul. 91.

Fabr. Hildanus (*a*) gives a history of a poor woman, who by a fall from a tree bruised the pudenda, and, for want of proper assistance, had both the meatus urinarius, & labia vulvæ closed up; so that all her urine was discharged by the anus, during the remainder of her life, which was many years: and also of an old man, who having a scirrhus about the sphincter vesicæ, made water constantly by the anus.

However this be, it is certain there are no medicines, that will immediately force the urine, though some, as asparagus and turpentine, will in a very short space of time, give a scent to it. As then diuretics mix with and undergo the circulation of the blood, they must act upon all the other parts of the body, as well as the urinary passages; and consequently, must be very uncertain in producing the effect, for which they were given. They also, in weak and worn-out constitutions, are apt to work immediately upon the first passages, without going any farther. I have known a few grains of sal succini, millepedes, sal prunell. &c. given to a dropscical person, which have passed off by stool, and have not at all

R 2

affected



affected the urine. Could a remedy be found out, which would immediately, and with certainty, open the obstructed ureters, not only the Dropsy, but many other diseases, which daily destroy mankind, might easily be subdued, which now-a-days hardly admit of any cure.

Diuretics  
the only  
dra-  
gics.

Etmuller (*b*) assures us, that after universals, diuretics are the only medicines to be insisted upon in the cure of a Dropsy, they being the true hydragogues; but that, by an unseasonable use of them, the flux of the urine will rather be hindered than promoted. It is a common thing in authors to cry up this or that kind of diuretic, as the best in the world, according as it happens to fall in with their hypothesis, or particular way of thinking. But whoever designs to administer these sorts of medicines, should not be influenced by the bare assertion of this or that man, let his name and reputation be ever so great. The patients constitution and way of living, the cause of the disorder, and the like, are the only true stars for the physician to steer his course by.

Of differ-  
ent sorts.

“ For those who have indulged a method of  
“ hot intemperance, till they have over-

“ raised

“ raised and heated the blood, and contracted  
 “ a flatulent digestion, the best diuretics are  
 “ spring-water, green-tea, milk and water,  
 “ and emulsions of all kinds. In cold, low,  
 “ and languid constitutions, where the sé-  
 “ cretion is lessened from a diminished velo-  
 “ city of the blood, infusions of horse-radish,  
 “ mustard, millepedes, balsam of capivi, and  
 “ such warm stimulating diuretics, mixed  
 “ with diluters, will be most effectual. When  
 “ the urinary glands are very much stuffed  
 “ and loaded with gravel, or any fabulous  
 “ matter, which cannot be thrown off by  
 “ the common diuretics, recourse must be  
 “ had to cantharides. If the urinary glands  
 “ and passages are scorbutically affected,  
 “ dilacerated and corroded, the curative  
 “ intentions cannot be obtained without  
 “ mercurials” (c).

Common salt, or that made of sea-water 1. Salt.  
 by the sun’s exhalation, is recommended by  
 Dioscorides for the cure of dropical swell-  
 ings; who says, it is restraining, obsterfive  
 and cathartic, than which no medicine can  
 have better qualities for curing this disorder.  
 Though salt, applied to the fibres of dead  

R 3

 animals,

(c) Morgan’s Philos. Princ. p. 438. Willis de Ascit.  
 p. 278, &c.

animals, makes them hard of digestion, loads us with an impure chyle, and so lays a foundation for scorbutic disorders; yet when sufficiently diluted with water, whey, &c. it is of a very different nature, and is very proper to wash away such kind of obstructions.

There are several preparations of it, which have done great service to mankind, in this, and other obstinate disorders. By distilling it with bricks, fuller's-earth, tobacco-pipes, &c. is produced the common spirit of salt. This is a very powerful diuretic and deobstruent medicine, abates heat and thirst exceedingly; and may be given to sixty or seventy drops at a time. From one part of this, and three of spirits of wine, is prepared by distillation the spiritus salis dulcis, of the Edinburgh Dispensatory. Mr. Geoffroy says, that fifteen or twenty drops of this dulcified spirit, taken every morning on an empty stomach, in six ounces of a decoction of juniper-berries, is an excellent remedy for a Dropsy. The common spirit may easily be brought into a solid mass, with salt of wormwood, and then it is called spiritus salis coagulatus. This is a contrivance of A. Minsheth; and indeed the medicine is much mended by this addition.

Spirit of  
salt.

Sp. salis  
dulcis.

Coagula-  
ted.

It

It may be given to fifteen grains, in any proper vehicle ; and is a great deobstruent, a powerful diuretic, and consequently a good medicine ; or rather, if we may believe our author, a specific in the Dropsy. Quercetan has another spir. falis coagulatus, without salt of wormwood, which is good for the same purposes.

Nitre is a kind of salt, which arises out of the earth, in many places ; whence it was called *sal petræ*, and by us, salt petre. The antients made great use of it, for the relief of the sick, and preserving the bodies of the dead. They also used it in cookery ; to clean their cloaths ; and had it from several places, as Armenia, Lydia, Buna, Chalastra, Thrace and Egypt : they likewise had several names for it, *νίτρον* *halmariga*, *αἰθὴς νίτρον*, or *αἰθίον*, *spuma nitri*, *capistrum*, & *operithantum nitri*. Bellonius, Geoffroy, and others, are of opinion, that the antient nitre was not the same as ours ; but Casimire, Cardan, Clark, and others, are of a different one. Nitre has all the properties of salt, and some more. Sir Theod. Mayerne prefers it to all other diuretics in the cure of a Dropsy, because it cools and allays thirst. Dr. Rawley, in his life of Francis Lord Verulam, tells us, he

2. Nitre,

took three grains of it every morning in warm broth, for the last thirty years of his life, which ~~was~~ thought to contribute much to his health. Some physicians cry up nitre, as a specific in Dropsies; the Monks mix it with a fourth part of crocus martis, and give it to sixteen grains, four times a day; they also dissolve a drachm in a quart of the patient's common drink, to be drank in a day's time; and Mr. Geoffroy says, this method has often succeeded.

We have three or four preparations of nitre, which all partake of the cooling, deobstruent nature, of that excellent simple. The London Dispensatory orders the lapis or sal prunellæ to be made of one pound of pure nitre, and two ounces of the flowers of brimstone; that of Edinburgh puts but half an ounce of the latter, to a pound of the former; and Dr. Boerhaave, proc. 133, still lessens the quantity; for to  $\mathfrak{z}\text{ijv}$ . of nitre, he puts only  $\mathfrak{z}\text{j}$ . with good reason.

Sal prunellæ.

Sal polychrestum.

Sp. nitri dulcis.

The sal polychrestum, of the Scotch Dispensatory, is made from equal quantities of the two foregoing simples; and the spiritus nitri dulcis, is prepared after the same manner as the spiritus falis dulcis. That excellent  
chemist,



chemist, Joh. Rudolph. Glauber, found out the art of making both.

The pulvis pyrius, or gunpowder, is made of nitre, sulphur and charcoal. This is an excellent medicine in many cases, it being of a very powerful deobstruent and diuretic nature. In contusions after bleeding, it is of far greater service than many which are made use of upon that occasion. It is now coming much into practice, and has frequently been given with success in Dropsies, to half an ounce for a dose, twice a day, in white wine, or the infus. amar. by some of the best physicians of our nation.

According to Etmuller, the best diuretics in this disorder are volatile salts, such as are had from urine, worms, toads, &c. Sydenham and Willis are entirely for lixivious salts; nor does it matter from what sort of vegetables they are prepared. Broom and wormwood are two very common plants with us, and for that reason, I believe, they are most commonly used in this distemper.

3. Volatile salts.

4. Lixivious salts.

These lixivious or alkaline salts are produced from most kind of vegetables, by crystallization after calcination. Nothing of an alkaline nature is to be obtained from any of them, any other way than by fire. This, accord-

All alike.

according to its different degrees, makes some of those salts more pungent, active, and fiery than others ; which is all the sensible difference to be observed in them. The same thing happens to salt of tartar, as to those produced from different plants ; for this will be more or less alkaline, according to the intenseness of the fire which produced it. Hence, I think, we may safely conclude, that all these alkaline salts are of the same nature, and retain nothing of the qualities of their several plants. Fran. Redi (*d*) says, that two drachms and a half of any of these kinds of salts, will purge as gently as lenitive electuary ; and that he had tried the experiment a hundred times, with salts made of rhubarb, fenna, agaric, jalap, mechoacan, &c. plantain, cyprus, lentiscus, cork, mandragora, vipers, &c. that he could never find any difference in any of them, except in the figure of them, which, however does not alter their purging quality. Hence, according to the doctrine laid down page 136, since so small a quantity of them will purge, a fifth or sixth part must prove diuretic, or otherwise deobstruent ; and experience shews us, they are so in fevers, jaundice,

jaundice, Dropsy, asthma, and all chronical as well as acute disorders. Those however, that require farther satisfaction in this point, may find it as in the margin (*e*).

The chemists now-a-days make salt of tartar, with a small difference of management, serve for the lixivious salts of all plants; and indeed, I believe, it will do as well as any other in all cases, and in some I have made the experiment. I sincerely wish, they endeavoured to put no greater cheat than this upon mankind; but alas! at present, we find but too many complaints of this nature in medicines of the greatest efficacy.

Salt of tartar.

There is kept in the shops a tincture, made of salt of tartar, and spirits of wine, which is a great deobstruent, acts powerfully by urine, will encourage sweats; and is therefore good, not only in a Dropsy, but in the jaundice, green-sickness, rheumatism, scurvy, and all other such kinds of illness, which arise from obstructions of the glands and lymphatics. It may safely be taken to one hundred drops or more at a time in white wine, or any other proper vehicle,

Its tincture.

(*e*) *Philos. Transf. abr.* vol. 3. p. 331. *Boerhaave's Chem.* vol. 2. *Quincy's Pharmac.* p. 321, &c.

vehicle. There are several other preparations of tartar, which are powerful deobstruents, remove obstructions, allay heat and thirst, provoke urine, &c. such are tartarus vitriolatus neutralis, tartarus regeneratus, seu terra foliata tartari, salt of tartar with acetum distillatum, &c.

Draught.

R. Aq. tænic. d. ℥ijj. tinct. sal. tart. ex sp. vin. ℥ij. vel ℥ijj. syrup. e. 5. rad. aper. ℥j. m. f. haust.

Boerhaave says, that if this tincture be given thus, every morning fasting, for three or four days together, and repeated again at proper distances of time, it will do more than almost any other medicine in the foregoing disorders.

Wine, 1.

R. Ciner. genist. ℔j. fol. absynth. vulg. pug. 1 vel 2 vin. Rhen. ℔jv. infund. frigid. liquor. per filtrat. colat. ℥jv. dentur mane, hor. 5<sup>a</sup>. pomerid. & sero usque dum tumor evanuerit. Sydenham.

With this remedy only, this author tells us, he had seen many persons cured of Dropsies, who could not bear purging, and so were looked on as past remedy.

2.

R. Vin. alb. ℔jj. sal. absynth. ℥jj. m. dos. ℥jv. vel ℥vj. bis in die. This is Fuller's vinum diureticum, which is made with little trouble,  
and

and will answer all the intentions of the foregoing.

R. Ciner. genist. absynth. vel farment. 3. vitis ad abbed. calcinat. & eribrat. ℥iv. ponant. in lagen. vitrea. cum vin. abb. ℥ijj. digerant. clause & calide per 3 vel 4 hor. dein colet. dof. ℥vj. vel ℥vjj. bis in die.

This medicine, Dr. Willis says, has brought away a gallon and a half of urine in a day and a night, and that the patient has recovered in a short time, to a miracle.

Dr. Fuller has two medicines, the lixivium de calce, and the lixivium hydropicum; and Dr. Bates one, the vinum lixiviosum; all which are founded upon the same principles, and are admirably good medicines in this disorder. The method of taking them is the same as the foregoing, in a great measure, and may be seen in the authors themselves.

Fabr. Hildanus used to give a scruple or two of the fæcul. rad. ari, & crem. or sal. tart. together, in dropfical disorders, with success. This medicine may be taken, either in broth or white wine, is not ungrateful to the palate, and is very powerful in removing obstructions.

Bolus.

An



5. Green-  
tea.

An infusion of green-tea in Renish wine, is not only a good diuretic and stomachic, but it increases the celerity of the blood's motion, and at the same time abates the thirst, as we before observed (*f*); whereas all other bitters are apt to increase it.

6. Black  
hellebore.

Black hellebore, when given in a moderate dose, is so far from being a violent purger, that it very often does not purge at all; and though it sometimes occasions vomiting, yet frequently it does not so much as offend the stomach. Avicenna says, it provokes urine and the menses. “ The latter of these  
“ qualities is sufficiently known; and, in  
“ Dropsies, I have seen more wonderful  
“ effects from it, than from any other diu-  
“ retic; but it will not always equally work  
“ wonders. This difference in its operation  
“ arises, I suppose, from the nature of the  
“ distemper, a very dangerous one in itself,  
“ (sometimes absolutely incurable) (*g*), and  
“ various as to admitting this or that sort of  
“ cure. For there are cases of this kind, (as  
“ may be seen in the histories above,) which  
“ seem in every respect the same, but will not  
“ yield to the same method of cure; though  
“ no reason perhaps (except the part, where  
“ it

“ it takes its beginning, which sometimes is  
“ not to be discovered till the patient dies)  
“ can be given why they should not (*b*).”

There are several preparations of this most excellent plant to be met with in our dispensaries. There is *apozema helleboratum*, *tinctura melampodii*, (which is left out of Dr. Fuller's edition of this author,) and *vinum helleboratum* in Dr. Bates's *Pharmacop.* There is a *tinctura hellebori nigri*, in Quincy, made with white wine; the *tinctura emmenagoga* in the *Pharmac. Pauper.* made with rectified spirits of wine; and another *tinctura helleb. nigr.* in the *Edinburgh Dispensatory*, made from Spanish wine. Dr. Willis has also an *extractum hellebori nigri*. All these are admirable medicines in a suppression of the menses, Dropsies, melancholy, &c. The ways of preparing them, and the method of using them, may be seen in the authors here quoted, but this plant answers our expectation no how better, than in an infusion with other medicines according to the intention of the physician.

Fabr. Hildanus, in the general preface to his works, tells us of a woman that was killed by taking half a scruple of the extract

Napellus  
sometimes  
mistaken  
for it.

of

(*b*) Dr. Friend's *Hist. of Phys.* vol. 2. p. 105.

of black hellebore, which he thinks was owing to a mistake of the apothecary, who made use of the root of napellus instead of hellebore, which is a deadly poison, very like hellebore to the eye, and therefore ought carefully to be distinguished from it; for hellebore, he says, is a safe medicine; that he himself had taken it with success for an ague; and had cured an epilepsy by it. A good caution this, both for physicians and apothecaries, especially the latter; since the making up of all medicines is now entrusted to their care, without the inspection of the physician.

Matthiolum and Hildanus say, this root is so very powerful in the cure of quartan agues, that they do not remember one person in this case who did not take it with success.

Most other purging medicines, as well as hellebore, will now and then occasion large fluxes of urine. A person, who was ill of a fever, had an ounce of cassia given him by his physician; but this not working with him, it was repeated till he had taken two ounces and a half. He then fell into a violent flux of urine, which continued upon him three days, and was so sharp, that every time he made water, he thought  
a red-

a red-hot iron had been run up the urethra (i).

Dr. Bates from Marcellus Donatus (k) says, calcined toads, or what he calls pulvis 8. Toads; æthiopicus, given to a drachm at a time, has sometimes been of admirable service in a Dropsy; but though I have often made use of it, I never was so happy as to find any good effect from it.

Cantharides are one of the most powerful stimulating diuretics in the world. Hippocrates gave them inwardly three at a time, the head, feet, and wings being plucked off, and mixed with three glasses of water. From his time, till Groenvelt wrote about the way of giving them inwardly, few physicians made use of them, except in raising of blisters. These act so violently upon the urinary passages, as often to bring away blood, when only applied to the skin; so that great care ought to be used when we give them inwardly. Mr. Morgan assures us, that cantharides given in small quantities, not exceeding five grains, and well diluted with any thin, soft, milky liquor, is beyond 9. Cantharides.  
S all

(i) Fabr. Hild. de Lithotom. Vesic. p. 759.

(k) De Mirab. Hist. Med. p. 696.

all dispute, the most powerful and effectual diuretic in the world.

Pills.

R. Test. ovor. calcinat.  $\mathfrak{z}$ ss. camphor.  $\mathfrak{z}$ j. cantharid.  $\mathfrak{z}$ ss. terebinth. Ven. q. s. f. pill. N<sup>o</sup>. 9. deglutiantur 3 tertiis horis. These are the second pillulæ diureticæ in Fuller's Pharmacopœia, which may safely be given, and are a great and powerful diuretic.

Tincture.

The tincture of cantharides in our London Dispensatory is a good medicine, may safely be given in this distemper, and has cured persons of a Dropsy, when other medicines have failed, and the case been given over by good physicians.

In the year 1735, I cured a poor man of an Ascites, who had a tumour at the pit of his stomach, his navel started, and a great suppression of urine, after he had to no purpose been frequently purged with calomel, gutt. gamb. jalap, &c. by only giving him some of the tinct. cantharid. pharmacop. Edensis, twice a day, in a dish of camomile-tea. This tincture is more diuretic than that of the London Dispensatory.

A gentlewoman fifty-four years of age, having been long troubled with the stone, fell into a Dropsy; which being cured, she was seized with a suppression of urine for  
four



four days. On the fifth day, she took five cantharides, or gr. 4<sub>z</sub> with as much camphire, and some conserve to make it into pills. This medicine having no effect, it was repeated the next morning. About noon, she began to make water freely, and in forty-eight hours discharged as much as could have been expected from her in the whole time of her obstruction. The operation was as mild as if she had taken only two doses of sal prunellæ (1). The same effect I have found from a like quantity of each.

It is well known, that soap is nothing  
 else but lixivious salts, brought to a consistency by boiling oil along with them, and sometimes an addition of quick-lime. By this means, there is formed a kind of universal medicine, which may be given to an ounce in twenty-four hours. It is when rightly prepared, according to Boerhaave, one of the most pure and excellent medicines we possess; the numerous virtues whereof may ease the physician, who is acquainted with them, of a great load of simples of much less efficacy. It is almost an universal deobstruent, and may not only

10. Soap,

S 2

be

(1) Philos. Trans. abr. vol. 4. part 2. p. 216.

be given in a Dropsy, but in almost all other disorders.

The elixir sapientum, Helmont's soap, the sapo tartari, or philosophorum of Starkey, and corrector of Mr. Matthew, are nothing else but alkalious salts incorporated with oil, but are all great deobstruents, provoke sweat and urine, and so carry off the morbid matter of the most inveterate chronical disorders. The soaps of Venice, Castile, and that made in our own country, daily give relief in cases of gravel, stone, jaundice, Dropsy, &c. as is well known to every practitioner.

Pills.

R. Sapon. Ven. ʒij. ol. anisi gr. 8. contundendo f. pill. N<sup>o</sup>. 24 pro 4 dosibus. These are the pill. smegmaticæ of Dr. Fuller, and the pill. diureticæ of the Pharmacop. Pauperum.

Draught.

R. Sapon. Ven. ras. a ʒij. ad ʒjv. coq. in lact. ʒjv. ad ʒvj. adde sacch. alb. ʒijj. cola; detur mane & hor. 4<sup>a</sup>. pomerid. This is the haust. sapon. of Dr. Fuller, which he takes from Barbette.

11.  
Woodlice.

Millepedes, or woodlice, are a medicine so well known, that people entirely ignorant of physic constantly take them for jaundice, scrophulous tumours, inflammations of the eyes, &c. They are a most admirable medicine,

dicine, but rather act as an alterative than a diuretic, in many constitutions. No preparation of them can possibly mend them, being best taken whole; but for such as cannot swallow them after this manner, the expression in Dr. Fuller's Pharmac. and the vinum millepedatum in the Edinburgh Dispensatory, are very well contrived.

R. Milleped. viv. & sacch. alb.  $\overline{aa}$   $\zeta$ ijj. Expression  
simul contusis affundatur vin. alb.  $\mathfrak{ss}$ j. probe  
miscantur in mortario, & liquor expressione  
coletur. Dosis  $\zeta$ ijj. singulis auroris vel sæpius.

Sulphur contains in itself an acid, which 12. Sul-  
acts vigorously upon the fluids of a human phur.  
body. All the preparations of it partake of  
this quality more or less, and by this means  
attenuate viscid and fizy humours, and fit  
them to pass off by every gland, but especi-  
ally the kidneys. The gas sulphuris in our Its Gas.  
College Dispensatory is a medicine very  
agreeable to the stomach, is a mild and  
gentle but very certain diuretic; and as it  
contains this acid spirit in a large quantity  
of water, but few medicines will exceed it  
in allaying thirst, and carrying off by urine  
the superfluous lymph of dropfical persons.  
It may very safely be given to half an ounce  
at a time or more, two or three times a day.

This medicine thus taken in a bitter tincture, and now and then with Piermont waters and some old hock, restored a gentleman in a short time, who was thought to have a Dropsy in his breast, accompanied with a dyspnæa, swelled legs, thighs and belly, and also with a jaundice. He was given over by his physicians in the country, but happily restored by this gentle method, by my very good friend Dr. Burton, who is now, as he well deserves, at the head of his profession. He made use of no other medicines, except some oxymel scilliticum at a night.

13. Cop-  
per.

Tincture.

The antients, as I have before observed, made use of several preparations from copper in the cure of this distemper, which for the most part were so rough in their operation, that few or none of them have been called for of late years. Professor Boerhaave (*m*) however dissolves copper in spirits of sal. ammoniac, and so makes a tincture of it by motion only. This he gave in mead to a dropfical patient with success. He began with three drops, and doubled them every morning for four days; then he continued this dose of twenty-four drops a day for some

some time, till the urine ran from him as out of a syphon; and afterwards, by a good restorative drying diet, he was perfectly restored to health. Upon this success, as Dr. Sydenham had done before him with syrup of buckthorn, he became proud of having found out a certain cure for a Dropsy; but, like that honest man, he fairly owns when he came to try it again it would not answer his expectation; whereupon he very justly concludes, that there are several kinds of Dropsies, to be cured by as many different methods, and that some of them are absolutely incurable.

Ants eggs boiled in butter-milk are a great diuretic, says Sir Theod. Mayerne. 14. Ants eggs.

R. Ovor. formicar. cochl. 1, coq. in lacte ebutyrato, exprime & edulcor. pauco saccharo. Detur mane superambulando, hor. 4. ante prandium per octiduum.

This medicine Sir Theod. gave to a woman in a Dropsy, which brought a great deal of wind from her, gave her several motions at first to make water, and at last brought from her such quantities of urine, that she often made a whole chamber-pot full at a time.



15. Tur-  
pentine.

Etherial  
oil.

Fonsēca commends turpentine washed in barley-water, and given to  $\mathfrak{z}\text{ss}$ . twice a week for a Dropsy. Clossēus formed pills of terebinth and vitriol alb.  $\text{aa p} : \text{æ}$ . by incorporating them together, which may be given to  $\mathfrak{z}\text{ij}$ . for a dose, and are very diuretic. The ætherial oil of turpentine is a most powerful diuretic. Dr. Cheney will have it to be a specific in the sciatica; but I have given it in this case without success. One single drop of it, being taken with any other liquid, will give a scent to the urine in a quarter of an hour. A young man by mistake took a draught of this oil to quench his thirst. It threw him into a diabetes and a violent profluvium seminis, which left so great a weakness in those parts, that he felt it all his life after (*n*). Another, from an over dose of it fell into a diabetes, and died hydropical in twenty-five days (*o*); and a third, from two drachms of it had a strangury, bloody urine, fever, &c. but was cured by a warm bath and Dr. Fuller's emulsio arabica (*p*).

If a quantity of turpentine be put into a clean close vessel, and so dissolved and raised  
by

(*n*) Boerhaave's Method of Chem. per Shaw, p. 102.  
(*o*) Obs. 52. Cent. 5. (*p*) Med. Essays Edinb.  
vol. 2. p. 48.

by fire, there will be produced a clear liquor, that will readily mix with water, is of a very acid taste, will as readily as water extinguish fire, and is perhaps the most noble diuretic in the world (*q*).

Harman in a suppression of urine pre-  
scribes it thus: R. Vin. canar.  $\mathfrak{z}$ iv. succ.  
limon.  $\mathfrak{z}$ j. sp. terebinth.  $\mathfrak{z}$ j. m. pro haust. Draught.

Fabr. Hildanus (*r*), tells us of a nobleman, who being persuaded by an emperic, to take two ounces of sp. terebinth in white wine, for a pain in his loins and about the os sacrum, was immediately seized with a violent pain in the kidneys, and in five hours time had pure blood, and sometimes blood and urine mixed, begin to come from him by drops, with violent pain. These symptoms continued some time, though medicines of all kinds were not wanting; and the pain of his loins was not removed till many years after. Thus, says our author, a safe medicine may become poison by an error in the quantity of the dose.

The juice of chærefolium, or chervil, is  
one of the greatest diuretics, if given to two  
ounces in a morning with white wine for  
many

16. Cher-  
vil.

{*q*} Ibidem.      (*r*) Boerhaave's Chemia, vol. 1.  
p. 294. Fabr. Hild. de Hydra, cap. 8.

Onions,  
leeks, and  
garlick,  
&c.

many days together. The juice of onions, both common, and sea-onions called squills, leeks and garlick, taken after the same manner, will sometimes do admirable service. The juice of several other herbs, as brook-lime, plantain, &c. depurated, and taken to  $\text{ʒijj}$ . twice a day in white wine, provoke urine, and insensibly consume the water of a Dropsy, says Sir Theod. Mayrne from Johannes Anglus. This author, who is also called John de Gadesden, lived in Edward the Third's time, about the beginning of the fourteenth century; but as his character is already drawn up by Dr. Friend (s), I shall only give you his method of preparing and giving these juices, since he is the first who mentions this method of cure. In a Dropsy from a hot cause, says he, take the juice of plantain and liverwort, and fill an earthen-pot with them almost to the top; cover it with a thin skin or bladder, and tye it close; then place it in an oven after the bread is drawn, laying the ashes all round and on the top of it. When it has been boiled thus, let the strained liquor be sweetened with sugar, and some of it be drank night and morning. He says, he cured a physician of

of a Dropsy, by making him drink nothing else but this juice with some spikenard for three days together, and holding some sugarcandy in his mouth (*t*). Since his time, Dr. Willis gave these juices after the following manner.

R. Folior. plantag. virent. m. jv. hepaticæ, becabungæ  $\overline{aa}$  m. jj. simul contusis affunde aq. raphan. comp.  $\mathfrak{lbss}$ . f. expressio fortis. Dos.  $\mathfrak{zjjj}$ . ter in die.

R. Rad. scenic. herb. apii rustic. eupator. petroselin. Macedon. & hepaticæ  $\overline{aa}$  m. i, pseudo-mascul. m. jj. vin. alb.  $\mathfrak{lb}$ . 8. f. infus. calid. in vase bene clauso donec evaporentur  $\mathfrak{lbjjj}$ . colatura fervetur pro usu.

One Peter Lowe, a Scotsman, published a treatise of Surgery, A.D. 1612, wherein he says, that during the seige of Paris he cured many persons of the Dropsy by the foregoing medicine, which he procured of a Turk that belonged to the Spanish general: he says, this wine should be drank as common drink; and that after three days a flux of urine will come on, which will continue fifteen or twenty days, in which time the patient will recover. During this course,

the

(*t*) Rosa Anglica, p. 33, 2.

the party must be kept warm, and eat only meat that is roasted and of easy digestion.

There are several other English plants mentioned by authors, which are said to provoke urine; but none of them come up to those already mentioned. Their names however are asparagus, petroselinum, fœniculus duleis, fescia, daucus, radix vinco-toxici, pimpinellæ, valerianæ, semen hyperici, alkekengi; the ingredients for the syrup of marshmallows, which is better in decoction than in a syrup, as Quincy well observes, &c.

At the beginning of this century (*u*), the Portuguese imported from Brasil a root, to which they gave the name of *pareira brava* or wild vine: it is pretty large, not much unlike to that of white briony; and is of a bitter aromatic taste. It is a great vulnerary and diuretic, and if we may believe Helvetius is not less a specific in disorders of the kidneys and bladder, than ipecacuanna is in dysenteries, or the cort. Peruv. in intermitting fevers. In all manner of obstructions of the urine, whether from sand, gravel, or ulcers, this medicine does wonders. In violent nephritic

17. Pa-  
reira bra-  
va.

(*u*) The Spanish ambassador first brought it into France, 1706. Dictionair. de Commerce,



nephritic pains, and at the beginning of Dropsies, it is very often of admirable service, if taken only in a simple infusion (\*) of spring-water; but the same author tells us, that he had found by long practice, that it is not so efficacious in confirmed Dropsies as might be wished. For this reason he contrived a balsam of it, which is highly commended by him for a most powerful diuretic; which character, it is true, it well deserves: but I am apt to think the great virtue of it is more owing to the other ingredients, than to the pareira brava. As this root is not very common to be met with in England, I shall not at present trouble my reader with any farther account of it, though some persons here of late have much commended it for the cure of this distemper.

In America they have a plant called partridge-berries, a decoction of whose leaves, being drank as tea several mornings together, will discharge vast quantities of urine, so long as the Dropsy lasts; and then may be drank

18. Partridge-berries.

(\*) See his method of infusing in *Philos. Trans.* abridg. vol. 5. p. 303. viz. take eleven grains of it powdered, infuse in a pewter tea-pot all night in warm ashes, boil in the morning, and drink three, four, or five dishes of this infusion.

drank without increasing the flux of it, according to Dr. Mather (*y*).

19. Cyanus.

The cyanus, blue-bottle, or corn-flower, is well known, to be serviceable in sore eyes, the jaundice, &c. Its sharp and bitter taste sufficiently declare its diuretic quality; whence Fred. Hoffman, in his notes upon Schroder, affirms, that a decoction of it carried off a Dropsy at the beginning by urine. In 1694. and 1695, two men were cured by a decoction of it in an Ascites, with swellings in the feet and scrotum, so that they could hardly lie down in bed (*z*).

#### S E C T. VI. *Of Diaphoretics.*

By diaphoretics.

The pores of the skin, it is certain from Malphigi, are prodigious numerous. By them we daily lose insensibly a great quantity of what we eat and drink. These are liable to be closed upon many accidents; and when they are so, a foundation is often laid for fits of illness of some kind or other, which in a very short time must be sure to follow. Dr. Cheney (*a*) gives an algebraic equation to find what quantity of matter will

(*y*) Philof. Transf. abr. vol. 5. p. 312. (*z*) Manget, Biblioth. Script. Medicor. p. 90. tom. 1. (*a*) New Theory of Fevers, p. 160.

will be added to the blood and juices, by a retention of the usual evacuations for any certain time. Suppose we usually eat and drink eight pound in a day, and that instead thereof our appetite declining upon perspiration being stopped, we only eat and drink the second day after, six pound, the third four, the fourth two, and the fifth nothing; then in this time twelve and a half pound will be added to the mass of blood and juices. A large quantity this, and sufficient to account for all the disorders to which our bodies are subject.

Many methods have been proposed, and many medicines thought of, to open these obstructed outlets; and happy would it be for us, could this always be effected. Fevers would then be cured with more certainty than they are, and many other disorders might be removed, which may now justly enough be called the opprobria medicinæ. In an universal Dropsy, the pores of the skin must be obstructed for some time, before any great swelling can be formed; the juices must be rendered viscid, and the fibres must have lost their elasticity. It is with the utmost difficulty therefore, that dropical persons are made to sweat; and indeed,

indeed, as Aretæus well observes, these sort of people will not sometimes be made to sweat even by bathing.

In Dropsies of any particular part, diaphoretic medicines can do but little; nay Dr. Willis assures us, that they often do much harm in an Ascites. The Anasarca is the only kind of Dropsy where diaphoretic medicines can be supposed to be serviceable. Here indeed relief, especially at the beginning of the disorder, may be expected from almost any kind of sudorific. Dr. Pitcairn recommends above all others a decoction of sassa, guaiacum, all acrid antiscorbutics, and some aromatics, which dissolve the viscidities of the serum. The common diaphoretic medicines now in use may be met with in any Dispensatory, of which, as not being peculiar to this distemper, I shall say nothing more at present. But here I must not forget to mention an observation of S. Dwight in his Treatise De Hydrope. He there says, that almost all cathartics and emetics of the vegetable kingdom may be made diaphoretics, by burning them in an iron-ladle, till their rougher qualities are destroyed; and that the stronger purgers they were before calcination, the more powerful diaphoretics they

they will be after. He chiefly recommends euphorbium, gamboge, coloquintida, and black hellebore to be used thus, and says, the dose of them may be half a drachm or somewhat less. This method I have sometimes tried, and find that dropfical persons by sweating after this manner become prodigiously weak; so that they should not be made to sweat oftener than once in five or six days, or as they recover their strength.

R. Milii excort. ℥ij. coq. in aq. font. ℞ij. donec ℥ijj. vel ℥jv. tantum supersint. Colaturæ misceantur cum æquali vini albi generosi portione, & detur calide. Copiosissime sudabit æger, si texeris diligenter. This medicine is called the syrup of St. Ambrose. Horatius Ræsus, as we are informed by Scholtzius, cured many children and some women of the Anasarca by this medicine only (b); and in the Medical (c) Essays of Edinburgh we are assured, that this medicine will cure a dysentery with as great certainty, as the simarouba.

St. Ambrose's  
syrup.

I have nothing to say in this place concerning insensible perspiration, because it is a hard matter to increase this evacuation,

T

without

(b) River. Op. Med.—& Musitan. Trutin. Medic. p. 692. (c) Vol. 2. p. 384.



without causing sweat ; and if a diaphoretic course can only be serviceable in an Anasarca, and that only at the beginning, much cannot be expected in any case in the cure of a Dropsy, from this kind of evacuation, which seems to be but little in our power to command.

C H A P.

## C H A P. VIII.

*Its Cure by Externals.*

I Have now gone through all the several sorts of internal medicines, which are to be used in making a discharge of the water that occasions a Dropsy, in any part of, or all over the body. Besides these, experience has furnished us with other helps, that sometimes do great service in this disorder, when applied to the body externally.

The Hon. Mr. Boyle, and others, have questioned whether we do not inspire also, or receive by the skin, some such particles of matter as actually mix with the blood and juices of our bodies, and so occasion diseases. Let this be as it will, it is most certain, that some medicines applied immediately to the skin, have very often the same effect upon us, as if we took them by the mouth. Aloes, and several other purging medicines applied to the navel will work upon children, and sometimes bring away

worms by stool. Fallopius (*d*) mentions a lady-abbess who, instead of taking the purging-pills he usually prescribed for her, applied them only to the stomach outwardly, and in four or five hours they would work as well with her, as if she had swallowed them. Oil of turpentine applied to the skin will make the urine smell of it in a short time; some persons have been purged by smelling at medicines; and salivations will as easily and more effectually be raised, by anointing the body with mercury, than by giving it in pills or bolus. Many strange effects have been produced by amulets and charms; and if we may believe some physicians, whose credit in other cases cannot be disputed, such cures have often been wrought in this and other diseases by external applications, as are not to be accounted for by any rational philosophy. Sir Kenelm Digby's sympathetic powder, or weapon-salve, once made a great noise in the world; and there are some thousands of persons who, it is said, have been relieved by this method. The lapis nephriticus, hæmatites, ætites & porcinus, have assuredly cured the stone, stopped hæmorrhages, caused abortion,

brought

brought down the menses, if we may believe Monardes, Bontius, De Boot and others. Hen. ab Heers tells us, of a woman whose bladder was lacerated by the midwife, from whence came a diabetes, that was cured by hanging the ashes of a toad, burnt alive in a new pot, about her neck; and also of a merchant, who was subject to the same disorder after lithotomy, who was cured by the same application. What real effects the famous Anodyne necklace has upon children in breeding their teeth, the learned may dispute, while the contriver of it is very sensible of its more than ordinary virtues, by the vast sums of money it brings him in daily. Let me not be thought over credulous for quoting some of the following histories, the truth of which must entirely depend upon the veracity of those authors that relate them. Men of the best credit have sometimes given us such surprizing accounts of cures effected by this means, that we must either believe the facts, or dispute every thing which we do not see with our own eyes. It might not, I think, be below the greatest physician and most able philosopher to make more experiments this way, since a sufficient number of such

T 3

facts,

facts, well attested, would either lay a sure foundation for a new philosophy, or teach us to extend the principles of that in fashion, to a great many phœnomena, which have not yet been accounted for.

By Burns. If the spleen swells after a fever, and the body emaciates, give hydragogues and restoratives. If this does not cure, burn little places round about the navel, and one upon it, so that the water may be drawn off daily. But in children make incisions in all those parts of the body, which are swelled, and draw off the water by degrees, applying fomentations and a warm medicine to the wound (*e*). The reason for applying these fomentations and warm medicines is, because of the danger there is of a mortification; for according to Aphor. 8. sect. 6. the wounds of dropfical bodies are not easily healed.

By blistering with mustard-seed.

From the foregoing precept C. Celsus says, that in an Ascites mustard-seed should be applied to the belly, till it has raised blisters. It should also be burnt with hot irons in many places, and the wounds should be kept running a long time together.

The



By scarification and puncture.

The antients frequently used scarifications in a Leucophlegmacy or Anasarca. Asclepiades advised a puncture or incision on the inside of the leg, four inches above the ankle, as in bleeding; and if this was not sufficient he ordered the scarification to be made deeper, so as to bring it to a wound. Socrates and Themison made use of the same practice (*f*); so did Hippocrates, Leonides and Archigenes, says J. Langius in his thirty-second epistle, who there assures us, that by such wounds the water will be discharged in an Anasarca, Ascites and Dropsy of the scrotum. C. Celsus says, these wounds should be made four fingers long, that they should be kept running some days together; and that some authors advise the humours to be carried off by blisters (*g*). The Egyptians make use of this method of curing the Dropsy to this day, according to P. Alpinus.

According to the foregoing advice, one Browning, a very hard drinker, was cured of an Anasarca in fourteen days, by wounds made in each thigh; by purging every third day with succ. iridis; abstaining in a great

T 4 measure

(*f*) C. Aurelian. p. 489.  
Hist. of Phys. vol. 1. p. 33.

(*g*) See Dr. Friend's

measure from drink ; and by issues made after these wounds were healed (*b*).

Fallopius (*i*) saw a countryman cure the Anasarca, by scarifying the whole belly with a razor skin deep ; for at these wounds the water drained off, and so the patient recovered.

By blister-  
ing with  
canthari-  
des.

“ In Dropfies, where diuretics have proved  
“ ineffectual, the best and most effectual  
“ method of drawing off the waters is, by  
“ blistering. Some one or more of them  
“ ought to be kept contiually running in  
“ several parts of the body, till all the water  
“ is discharged, which by this means will  
“ sometimes be effected in a short time to a  
“ wonder. Afterwards any of the common  
“ diuretics will take place ; unless the lym-  
“ phatics are broke, so as to let out the  
“ water into the large cavities of the thorax  
“ and abdomen, for then the disease may  
“ be looked upon as desperate, and will  
“ admit of no cure (*k*).”

To be used  
with great  
caution,

According to this gentleman, one would think this way of evacuation must almost be infallible ; but whoever makes the experi-  
ment

(*b*) M. Lister de Hydrope. Caf. 1. --- & Marcell. Don.  
de Hist. Med. Mir. p. 422. (*i*) Op. Med. p. 597.  
(*k*) Morgan's Philos. Princ. p. 439.

ment will often find himself deceived. Fabr. (1) Hildanus, who was no bad surgeon, mentions a lady whose legs, being blistered for the Dropsy, mortified, and so she died in a few days. C. Pifo (m) tells us also, of a noble lady who died thus, notwithstanding she had all the care taken of her that can be imagined. Hildanus, upon the former of these cases, makes this excellent remark; In young persons, and those of a good constitution, this method sometimes gives relief, but it is most certainly destructive to old people, and those of a decayed constitution.

These sort of wounds, says N. Tulpius (n), do good to some, but injury to more. If the viscera are corrupted, it is true the water drains away by them, and the Dropsy seems to abate; but still, lying in the viscera, it brings on the wound either an incurable ulcer, or a mortal gangrene. I have sometimes known so great a flux of humours upon the part, from all these kind of wounds, as to cause most intolerable pain without the least relief. This kind of remedy should not therefore be rashly advised. For unless the legs be  
found

(1) Obs. 49. Cent. 1. & de Gangræn. c. 11.

(m) Obs. 119.

(n) Obs. 38. lib. 2.

found and the constitution good, the sick cannot bear without damage the sharp humour of the belly to be thrown upon that part.

Upon this account Dr. Willis (o) says, that it is more adviseable in Dropsies to blister the thighs and arms, than the legs or feet, where the natural heat is weak and the swelling large.

By cautery The same author assures us, that escharotics or cauteries applied to the legs are safer than blisters, because the flux of the humour upon the part is not so great at the first, but begins gently and rises gradually; and also, because there is less danger of a gangrene.

Pricks  
with a  
needle.

Let pricks be made in the skin of the legs, with a needle, where the swelling is greatest, six or seven at a time, about a thumb's breadth from one another. After twelve, eighteen, or twenty-four hours, make as many more in some other part of the skin, and do so once or twice a day, till all the water is discharged. These are the safest of all these sort of wounds, and by this method, if internals are not neglected, a Dropsy may easily many times be cured. An old man,  
seventy

seventy years of age, was, by this remedy only, kept alive many months, contrary to every one's expectation (p).

I have hitherto said nothing about bleed-  
ing, because it has generally been looked  
upon to be pernicious in this distemper ; and  
so indeed it must be where a Dropsy is come  
to a great height, the viscera are corrupted,  
and the constitution upon the decline. From  
the fourth chapter of this discourse it is evi-  
dent, that Dropsies come frequently from a  
suppression of some usual evacuation, from  
falls, violent motions, over-heating the  
blood with spirituous liquors, and the like ;  
that Dr. Sydenham was mistaken, when he  
asserted, that in all Dropsies the blood was  
too thin and watery ; and lastly, that the  
blood in this disorder is frequently too thick,  
viscid and fizy. In all these cases then, before  
the lymphatics are broken, and the viscera  
corrupted, bleeding must be absolutely ne-  
cessary, and ought to be made use of, before  
any other evacuation is attempted. This  
the antients were very sensible of, and there-  
fore Al. Trallian is very particular about  
bleeding at the beginning of an Anasarca,  
when it comes from too much cold blood.  
He

Of bleed-  
ing.



He also says, if the liver, spleen, or stomach are swelled and hard, blood must be taken away, especially if the veins are full, and the patient young, and the season not too cold. But these things ought to be well considered; for as unseasonable bleeding is dangerous in other disorders, it is certainly mortal in a Dropsy. Hippocrates goes farther and says, that even in a confirmed Dropsy, where the breath is short, if it be either spring or the middle of summer, blood should be taken from the arm. But C. Aurelianus (*q*) rebukes the old man for this doctrine, and says, if bleeding be necessary at these times, he can prove it to be so at any other.

By issues.

Though, according to Hippocrates, the wounds of dropfical persons are dangerous, as being hard to be cured; yet issues made in the legs and thighs of such persons have often been very serviceable, in abating the anasarcaous swellings of those parts (*r*).

By fomentations.

In this case Mr. Wiseman (*s*) recommends a fomentation of warm herbs, juniper-berries, sulphur vivum, alumen rup. and salt in spring-water, to take off some of the humour by the

(*q*) P. 485. (*r*) Fabr. Hild. Obs. 74. Cent. 4, &c.  
 (*s*) Vol. 1. p. 141, 204, &c.

the pores of the skin, and strengthen the relaxed tone of the vessels. After the use of this, the legs he says must be rolled up every day ; and then laced stockings, knee-pieces and trowsers must be used, which he would have streightned every day, so as the patient can bear it easily. He gives the histories of several persons, who have been cured by these means, in his treatise of Surgery.

Dry sweating is proper in the Anasarca, but baths and all sort of moisture is hurtful, according to C. Celsus. The antients however recommended in this disorder, baths; rubbings, as with a flesh-brush; exercise, whether the motion was made by being carried upon men's shoulders, on horseback, or in a ship at sea, &c. unctions; exposing them to the heat of the sun, a hot fire, the hypocaustum, &c. All these things must doubtless be of great service at the beginning of an Anasarca, before the pores of the skin have been too long obstructed and lost their elasticity. From these hints I have often thought dropsical persons might sometimes receive great benefit by being sweated in what they call the hot-house of a salt-work, where the salt is dried after it is taken

By bathing.

taken out of the pans and put into the baskets. I could heartily wish, that as Sir J. Floyer and Dr. Baynard have brought cold bathing again into fashion, some other physicians would endeavour at least to restore some more exercises of the antients, which I am sure would be greatly serviceable, not only in preserving our health, but in restoring decayed and worn-out constitutions.

By the  
psammif-  
mus.

The Anasarca, according to Dioscorides, C. Aurelianus, and others, is sometimes cured, when other things have failed, by the psammismus; i. e. burying the patient up to the neck in the sand of the sea-shore. This I own was a common practice in Egypt, Africa, and some other hot countries, but will I fear do but little service in a climate so cold as this of Great-Britain. The hot-house before-mentioned might perhaps serve our turns as well; especially if what Dr. Strother (*t*) says is true, viz. that the warmth of the nursery is absolutely necessary, when young children are troubled with the Hydrocephalus, to exhale the serum, which abounds too much in their tender fibres.

Dr.

(*t*) Essay upon Health, p. 13.

Dr. Sydenham says, he never could find any great service, from the external application of medicines in this disorder. In an Ascites, cataplasms and liniments applied to the abdomen, to discuss the tumour, do the least damage : but I cannot see how the water can be drained off by this means. Some of these applications are so far from doing good, that they often do harm ; such as are composed of the stronger cathartics, and applied to the abdomen under the form of ointments (*u*). Not only external medicines, but blisters, pricks with a needle, tapping, and all other operations of this kind, are condemned by this author ; and he says, none of them can ever be administered without uncertainty and great danger.

External medicines condemned by Dr. Sydenham.

Approved by Dr. Willis.

Dr. Willis however says, plasters sometimes do good in an Ascites ; but then they must by their restraining and warming quality comfort the viscera, and contract the mouths of the vessels, that they may not leak any longer. The emplastr. diasapon. or the empl. de minio & empl. Paracelsi  $\overline{aa}$  q. s. are the most proper things to apply to a swelled belly. Such applications as cause no evacuation must, in my opinion, be most proper

proper when the load of water has been removed by medicines or tapping; but they are not so often made use of as perhaps they deserve.

Etmuller  
and others

Etmuller (*x*) commends these applications following in an Ascites, swellings of the scrotum, of the labia vulvæ, and of the feet. Fomentations, cataplasms, and bags in wine or lye, made of attenuating, resolving, discutient aromatics, viz. *Fol. sambuc. ebuli, lauri*; herb. chamomil, menth. organ. absynth. succ. cucumer. asinin. rad. bryon. asari. cucum. agrest. sem. milii. sem. calid. maj. bacc. lauri, & juniperi, stercora omnia, humanum caprillum columbin, equinum, &c. urina humana, olea juniperi, sambuc. aneth. limac. bufon, &c. cochleæ cum testibus. Geranium robert. & chelidon maj. when bruised and applied to the feet, take down the swelling of them mightily; so does petroselin, fresh gathered and applied to the scrotum. Petrus a Castro had a secret, which was, snails beat to pieces with their shells, with which he cured the Ascites and Hydrocephalus. Several forms of medicines, composed of the ingredients here enumerated,

may

(*x*) Vol. i. p. 303, 304, 415. Op. Med.



may be seen in this author, in the places before quoted.

R. Urinæ pueri mund. ℥ijj. fal. prunell. ℥ijj. bull. ad 3<sup>a</sup> partis consumptionem profotu.

This fomentation is commended by Riverius.

R. Sp. vini rectificat. ℥ijj. sp. lavend. ℥j. pill. cochix maj. ℥ss. opii crud. ℥ij. m.

Dr. Fuller calls this medicine his lavamentum hydropicum, and says, that being used either by itself, or with an equal quantity of oil of elder-flowers, it is accounted a powerful remedy against watery swellings. The bellies of children, and the feet of men when swelled, should be anointed with it twice a day before a warm fire. This opens the pores, and makes the sily lymph there stagnating either transpire, or return again into the circulation; and there can be no danger of a mortification from the use of it, because of its spirituous particles.

When the legs have been scarified, the cataplasma pro bubone pestilent. & corbuncul. in the Pharmacop. Pauper. is a good medicine to prevent a mortification; but at these times fomentations must not be forgotten.

*Symorhus  
diaboli.*

Pontæus (*y*) the famous mountebank says, that for the Ascites, when other things have failed, one of the best remedies in the world is, to take the plant called *morsus diaboli*, and put it over the fire in a dry kettle, that it may become wet by its own juice only. A sufficient quantity of this must be applied to the belly and reins of the patient. He must then be covered up warm, so as to cause him to sweat, which he will be sure to do profusely. This must be carried on according to the strength of the patient and exigency of the case.

*Hemero-  
callis.*

Dioscorides and Pliny tell us, that the herb *hemerocallis*, not far unlike the lilly of the valley, applied thus to the belly, will bring away water and useles blood: and Etmuller assures us, that *cherefolium*, applied after the same manner, will act as a diuretic.

*Cherefoli-  
um.*

*Rue and  
oil of wal-  
nuts.*

Fresh rue fried with oil of walnuts, and applied hot as a cataplasm to the navel, and so renewed twice or thrice a day, is called by Mr. Boyle (*z*) an experienced remedy for an Anasarca.

R. Sapon.

(*y*) Philos. Transf. abr. vol. 3. p. 141.

(*z*) Works abrid. by Shaw, vol. 3. p. 667.

R. Sapon. nigr. ʒvj. croc. Brit. ʒss. fal. fuc-  
cin. gr. 15. m. f. cataplasma.

Black  
soap.

A gentleman who had formerly been run through the breast, in a duel, had every year, about the same time that the wound was received, which was in the summer, a violent pain in that part, and a suppression of his urine. He took diuretics inwardly to no purpose, at length this cataplasim was applied, which gave him ease, and made him make water plentifully (*a*).

Aquapendens, from Avicenna (*b*), highly commends a sponge, dipped in aq. calcis mixed with the juice of myrtle, for the cure of an Ascites, if applied all over the belly ; and tells us of a nobleman's servant, who was cured of a Dropsy and schirrhous spleen by the constant application of a sponge dipped in aq. calcis only to the part affected. From his authority, I suppose, Etmuller (*c*) recommends this as a singular method for discussing dropfical tumours.

Aq. calcis.

U 2

The

(*a*) Harris de Morb. acut. Infant. p. 156. Strother's Pharmacop. p. 136. (*b*) De Tumor. p. n. cap. 9 & 12. & River. Op. Med p. 206. (*c*) Op. Med. vol. 1. p. 304.

Toad.

The use of the toad, in physick, was not found out by reason but by chance, as is plain from Hildanus and Solenader.

Gradus says, that during the plague, A.D. 1450, a countryman applied toads cut asunder, and also alive to his plague sores. The latter soon died and drew out the venom, insomuch that all the sick that used them recovered (*d*): and Hoffman, in his *Clavis Pharmaceutica* (*e*), assures us, that half a drachm of the powder of dried toads, was of great service to many people, by making them sweat, when the plague was in London, A. D. 1665. Helmont says, that one Bucler, an Irish surgeon, was the inventor of this medicine; and that he saved the lives of some thousands by it during that distemper. The way of preparing the powder may be seen in Hoffman as above.

An old woman ill of a Dropsy, by the advice of another old woman, took toads (*ranæ rubetæ*) alive, and put them into a new earthen-pot with oil of olives, and boiled them together. With this oil warm she anointed her belly, beginning at the stomach and stroking her hands downwards. On the  
second

(*d*) P. Forest. Obs. 35. p. 253. See also Fabr. Hild. Op. p. 1028. (*e*) P. 644.

second day the swelling fell into her feet, so that they swelled exceedingly. She followed on the ointment, and on the third day the tumour disappeared, without any visible evacuation (*f*).

From such a history as this it is probable Riverius contrived the following cerate.

R. Bufon.  $\text{libj}$ . ceræ  $\text{libss}$ . bulliant: in olla lutata ad mediæ partis consumpt: colentur & f. ceratum, quod extendatur super alutam, & regioni lienis applicetur. This he says, will bring away all the water of a Dropsy.

Among the secrets of this author which are printed at the end of his works, an oil made of this animal is commended for curing the tinea or scalled head, morpew, and Dropsy.

A. Pitcairn (*g*) says, there are some who tie a whole toad dried to the loins, to promote the secretion of urine; but although he had seen an hæmorrhage at the nose, which would give way to no other means but bleeding, to stop immediately upon

U 3

holding

(*f*) P. Forest. ut supra.  
Phyf. b. 2. chap. 21. p. 286.

(*g*) Elemen. of

In the Medical Essays of Edinb. vol. 2. p. 307. a poor woman, who had laboured under a suppression of urine eight or ten days, was relieved by this means.



holding such a toad in the hand ; yet how it should promote secretion, he was at a loss to find out, if it be only worn outwardly.

This gentleman was for accounting for every thing in physick from mathematical reasoning, and was therefore unwilling to own his ignorance in any thing ; else I presume, if he could this way account for the stopping of the hæmorrhage, which he owns he saw, by an inverse method of arguing he might as well account for the water of a Dropsy being discharged by this application. But both these cases seem not at present to admit of any solution, at least not a mathematical one, and must therefore lye among the incognita, which are left for posterity to discover. There are many other phænomena in physick, which will admit of no solution at present, as well as these cures, which have been wrought by the application of toads to the hands, loins, and neck, if any credit is to be given to history.

Vierus and Varignana are very particular about this kind of application. They say the toad should be found in the woods, and cut through the middle of the belly ; that being thus tied about the loins, it brings away water plentifully by urine ; and that  
a fresh

a fresh toad must be applied as often as we would have this evacuation promoted. But I fear I have already said too much about this loathsome animal.

P. Forestus (*b*) has a peculiar way of sweating his patients for a Dropsy, by heating bricks very hot, pouring white wine upon them, and then applying them to the whole body, from the shoulders to the feet gradually. This method, I suppose he learnt from our countryman John de Gadesden (*i*), who advises nine stones to be taken out of a river, to be heated very hot, and then wine to be poured upon them, and so to be put into a bed till it is well heated, when the patient must be put into it and sweat.

By hot  
bricks.

Riverius (*k*) says, he cured a Hernia aquosa in a child of eleven months old, by a cataplasm of bean-flower  $\mathfrak{ss}$ . boiled in strong wine to a due consistence, and then adding oxymel simpl.  $\mathfrak{z}$ ijj. It was renewed night and morning, and the cure compleated in eight days.

The green leaves of bardana, bruised and changed every twelve hours, will cure drop-

Butter-  
bur.

U 4

fical

(*b*) Obs. 32. p. 247.

(*i*) Rosa Anglica, p. 34, 1.

(*k*) Obs. 4. Cent. 2.

fical swellings and ease gouty pains, according to Etmuller.

## S E C T. II. *Of Tapping.*

By tapping.

Some, or all the foregoing medicines having been made use of and found ineffectual; it is plain the water must be out of the vessels of circulation: so that nothing more can be done, than to pass a proper instrument into the body or collection of water, and so discharge it. In an Anasarca then this operation can be of no service, but may sometimes in all other.

The name

When the abdomen was filled with water, which was to be discharged by an instrument, the Greeks, and from them the Romans, called the operation paracentesis, or puncture (*l*): this we call tapping. In the Hydrops pectoris, the operation goes by the same name; but when the collection of water is made in any other part of the body, we do not make use of any particular term, the water being let out by incision or otherwise.

If to be used.

Euenor, Erasistratus, Theffalus, and some other of the antients, would not allow of this operation for the following reasons: 1<sup>st</sup>,

They

(*l*) Παράκτισις, from κείνω to pierce, and παρὰ through.

They said the peritonæum was nervous, and therefore could not bear wounding without great danger: 2d, Because the organs of respiration might be wounded by this operation: 3d, Because many, by opening the wound after tapping, had lost their lives: 4th, Because this operation only gives ease to, and respites the patient for some time, but perfectly recovers none: 5th, Because, according to Ptolemy and Erasistratus, it is always destructive, when the Dropsy proceeds from a scirrhus liver. All these objections are fully answered by C. Aurelianus (*m*), so that I shall only say, that although there is some hazard in the operation, yet it may be made use of; since some have been recovered by this means, and many have had their lives prolonged by it for many years, as both experience and history often testify.

In this operation the antients made use of a short knife or lancet, with two edges, called *spathomele* by Hippocrates. This they passed into the mass or body of water, and then putting a canula of brass or lead into the wound, drew off the water. The  
trochar

The instrument.

trochar (whether invented by Barbette (*n*) or Blockius, signifies but little) is a more convenient instrument. This is now so common it needs no description. The edges of this instrument are not so sharp, as to endanger the wounding the intestines, or any other noble part: and the silver canula being introduced along with it, prevents a deal of pain to the patient, being left behind in the body, for the water to be discharged by. C. Celsus tells us, that many opened the abdomen by cautery, rather than an instrument, because these kind of wounds do not heal immediately (*o*); and indeed, where the Dropsy proceeds from hydatides, this method must be preferable to the trochar; a larger wound being here required, than can be made by that instrument.

Place of  
the wound

Hippocrates, Ægineta and others of the antients, have left us large accounts of this operation. They are very exact in assigning the place, where the puncture is to be made, which

(*n*) See Barbette, p. 50.

(*o*) For this reason Fienus, in his definition of the paracentesis, extends the word to all wounds made into the cavities of the breast and abdomen, whether they be done by a sharp or edged instrument; or by the cautery, whether actual or potential.



Below the  
navel.

which they say must be just three fingers breadth below the navel, on the right-side, if the liver is in fault, but on the left, if the Dropsy comes from the spleen. C. Celsus and C. Aurelianus caution us much against opening a vein in this operation ; but here are none so large as to endanger the life of the patient, should they chance to be wounded. When this operation is thought necessary, the water is supposed to be lodged either in the duplicature of the peritonæum, or else within the cavity of the abdomen ; so that it matters not on which side of the linea alba we make the wound, or whether it be made somewhat higher, or somewhat lower, than Paulus advises ; for a rupture of the navel has sometimes discharged all the water of an Ascites, as we have already observed (*p*). Many authors take great pains to shew the exact place, where this puncture is to be made. Fallopius (*q*) says, it should be done in the most fleshy part, because there the wound will soonest heal ; and by two lines, one drawn through the other wide of the navel, delineates the place. Mr. Garregeot (*r*) gives us a rule very different from the

(*p*) P. 169.      (*q*) Op. p. 596.      (*r*) Chirurg.  
Observations.

the foregoing, when he says, the wound should be made in the middle between the navel and spine of the os ilium; which spine being of a considerable extent, left room for error, till Mr. Monro (*s*) corrected it, by observing that, in a sound state, a point four inches below and to either side of the navel, is the middle between the navel and the anterior spinal process of the os ilium; and that the muscular parts of the abdomen being near equally distended in an Ascites, this must be the exact point where the perforation ought to be made. This correction supposes that, in a sound state, the distance from the navel to this anterior process must be the same in all bodies, which we know it is not; or else, that the exact distance was known in a healthy state in the person to be tapped; for if this exact distance was not known when in health, the operator will, notwithstanding this rule, be liable to uncertainty.

A physician of my acquaintance, sticking too closely to some of the foregoing directions, caused a gentlewoman, whose belly was vastly distended, to be thrice pierced with the trochar, when from all the wounds they

they could not get more than two or three spoonfuls of blood and water together. Some time after I was called to visit her, when I found her much dispirited at the ill success of the operation, the largeness of her belly, and the apprehensions of no water being in it. However I soon satisfied her, that it was water which occasioned the swelling; and having found a thin place, pretty near the navel on the left-side, I ordered the gentleman who had made the other unsuccessful attempt to pass in his instrument, and from thence was discharged somewhat more than eight gallons of water.

Sam. Formius, an old experienced surgeon of Montpelier, having communicated to Riverius the case of a person who being in an Ascites had an exomphalos or prominence of the navel, and was cured by a paracentesis, or puncture made in that part, makes this useful remark upon the matter: All die, says he, whose navel is opened for an Ascites, unless nature points out the part by an exomphalos. This prominence may be procured by art; for dry cupping, emollient and attractive fomentations being applied  
to

At the  
navel.

to the part, will cause it to rise and be fit for the operation in eight days (*t*).

Time of  
this opera-  
tion.

Whenever a lymphaduct is broken, the water which should circulate through it must be deposited upon the part to which it belongs, and must hourly increase till the extravasated matter can be discharged, and the mouth of the leaky vessel stopped. From hence it follows, that as soon as there is the least quantity of lymph lodged on any part, out of the laws of circulation, we ought to discharge it immediately. It is a very difficult matter to distinguish, either by the touch or otherwise, whether the lymphaducts are broken, or only distended; and upon this account, I presume dropical people so often delay making use of this operation, till that which alone could have given them relief, serves only to hurry them to the grave. Where there is but one drop of matter formed, every surgeon endeavours to discharge it immediately; and shall not a physician give the same advice, when he finds the lymph extravasated, and too fizy to pass off by the common emunctories? This, as well as pus, will daily increase in quantity; will

(*t*) River. Op. Med. p. 571. obs. 5. See this point treated of more at large by T. Fienus, tract. 6. c. 3.

will in time become corrosive, and destroy the viscera which lie near it ; will take away the appetite, prevent sleep, weaken the whole body, and bring it to destruction. These things then, being rightly considered, shew us how carefully we ought to follow this precept of the divine (u) Hippocrates, **TAP EARLY FOR A DROPSY.**

As to the posture of the patient, he should according to Paulus be either sitting or standing ; for where a person is so weak as not to bear one of these positions of his body, this operation should not be attempted.

The posture of the body.

The water or matter which occasions an Ascites, and is now to be discharged, is of different colours, smells, taste, consistences (x), &c. Some physicians have pretended to foretel by the urine, skin, or part affected, what sort of liquid is contained in the abdomen ; but there is not the least certainty in these sort of conjectures.

Water of several kinds.

Most of the antients, and many of the moderns, advise the water in an Ascites to be drawn off at several times ; and Paulus says, the strength of the patient, together with his pulse, are the only guides to direct

The quantity to be taken away.

By degrees

us

(u) De Morb. vulgar. lib. 6. chap. 3.

(x) See Obs. 10.



us how much ought to be taken away at one time. Hippocrates (*y*), and from him C. Celsus (*z*), assures us, that those who labour under an Empyema or Dropsy, if they be cut or burnt, and the matter or water be all taken away at once, die certainly. A. Pitcairn (*a*) says, if the water was to be drawn off all at a time, the patient must die immediately, from a sudden falling of the diaphragm, and the viscera annexed thereto; which before were held up by the water. Wiseman will have it, that nothing is more pernicious to the patient, than great evacuations, though of excrementitious humour; and therefore will by no means allow the water to be taken away all at once. C. Celsus (*b*) says, that some draw off the water at twice; for by putting the canula into the wound the next day after the operation, they discharge the remainder of the water. Boerhaave (*c*) will not allow us to take away the water under fifteen days. Thouvenot, as quoted by Strother (*d*), used to take away from strong bodies seven, ten, or twenty pound of water at a time, and not

(*y*) Aph. 27. lib. 6.

(*z*) Lib. 2. cap. 8.

(*a*) Elem. of Phys. p. 287.

(*b*) Op. p. 451, 452.

(*c*) Aphor. 1240.

(*d*) Pharmac. p. 196.

not more than five, six, or ten from weak ones ; and thus within three or four days he took it all away. If it increased again he used the same method, and in the mean time he gave mild diuretics, gentle cathartics, and enjoined moderate exercise. C. Aurelianus is the first, who advises us to take away all the water at once, unless something happens to prevent it. Dr. Mead (*e*) has lately revived this practice, which in England is now generally used, and seems preferable to the other method, for these reasons following: 1st, When the water is drawn off at several times, either a canula must be left in the body, or a fresh wound must be made every time we renew the operation. By the former of these ways the parts are sometimes injured, great pain and inflammation is often occasioned, and now and then a mortification ensues. The making a great number of fresh wounds in this part of the body, must not only be troublesome but dangerous. 2d, No extravasated fluid, in whatever part it is lodged, can ever be supposed to be necessary to life. The sooner therefore and quicker the water of an Ascites is discharged, the better it must

X

be

be for the patient. 3d, When the water is taken away at several times, no bandage can be of any service. Every surgeon well knows, that this is more necessary than medicines, in bringing the divided fibres together, closing the mouths of the broken vessels, and so preventing a flux of humours upon any wounded part of the body. Bandage therefore must be as necessary in this case, when the water is once discharged, as in any other where matter has been lodged. Mr. Littre says, as it contributes to a quick reunion of the parts it is absolutely necessary; and C. Aurelianus is positive, that it hinders the belly from swelling again. 4th, C. Aurelianus orders us, when we take away all the water at once, to compress the belly with our hands; to apply lint and a sponge to the wound, and to roll up the belly with a fasciola or narrow roller. By this means the syncope, faintings, and sickness occasioned by the sudden removal of the pressure of the abdominal muscles, are prevented; which are the only things to be feared in this case. A professor (*f*) of anatomy at Edinburgh, has published an account of a bandage with straps and buckles to be used  
instead

instead of rollers, which I have often thought, before I saw this treatise, would be of great advantage to the afflicted during this operation. Dr. Pitcairn, and the other gentlemen who assure us the patient must die under this operation, from a sudden falling of the diaphragm, did not consider how easily this might be prevented. If the reader is not satisfied with what is here offered, he may consult Dr. Friend's second volume of the History of Physick, where he will find this topick handled more at large.

Those persons only, whose viscera are found, are fit to undergo this operation; for where they are corrupted, the patient by this means is hurried to destruction. C. Celsus (g) tells us, that those whose stomach is destroyed, fall into a Dropsy from melancholy, or have an ill habit of body, are not fit to undergo the paracentesis. Boerhaave (b) will not allow of this operation, under any other conditions than these following: 1st, The Dropsy must not have been long in coming: 2d, The strength must not be impaired: 3d, The body must be young: 4th, The viscera must be found, and not injured by any other disease: 5th, The

Who fit  
for this  
operation.

X 2

water

(g) Op. p. 166.

(b) Aphor. 1239, 1241.

water must not be putrid, nor long extravasated. Children are seldom tapped without danger; and Galen says, he never saw but one who escaped; so that Albucasis excludes all those of such a tender age from this operation. The like observation holds good, when the vessels are weak, or the blood in a very languid state, let the cause be what it will, as in the case of those, who are worn out with sickness or old age.

In what  
sorts of  
Dropfies  
to be used.

There are several sorts of Dropfies, or there are collections of water in several parts of the body, where the paracentesis is of great service, or which ought to be discharged by puncture, incision or cautery. When the liquid is contained in several vesiculæ, or the tubæ Fallopianæ, a large wound must be made, if we expect to do any service. If the water is contained in the

In that of  
the peri-  
tonæum.

duplicature of the peritonæum, the paracentesis, if applied soon enough, is more likely to give relief, than in any other kind of Dropsy, because the bowels are not here corrupted by lying in the extravasated serum. Mr. Cheselden (*i*) however is of opinion, that of all those he had dissected in this case, none could have been cured by this operation ;



tion; because the water had made the parts where it was contained as foul as an ulcer. Now if any of these could have been cured by the paracentesis, it must have been used before the water had occasioned this corruption of the parts, as I have before demonstrated.

In an Hydrocephalus, if the water lies within the skull, Albucasis thought it not proper to make an incision, or attempt to let it out (*k*); and Fabr. Hildanus says, this operation in this case is immediate death: if it lies between the hairy scalp and pericranium, it must be let out by incision or cautery. Cures made this way may be seen in Wiseman's Treatise of Surgery, and other authors of that kind.

In an Hydrocephalus or head.

When we are assured there is a collection of extravasated lymph in the cavity of the breast, medicines of any kind can do no service. In this case it is best to apply a cautery, and draw out the matter as in an Empyema. Hippocrates (*l*) directs us, when there is a tumour on the outside of the breast, as there sometimes is, to cut between the ribs, and cure it: if there is none ex-

In the breast.

X 3                      ternally,

(*k*) Dr. Friend's Hist. of Phys. vol. 2. p. 306.

(*l*) De Morbis, lib. 2. p. 483.

The place  
between  
the fourth  
and fifth  
ribs.

ternally, he says we must proceed as in an Empyema. Some open the breast in this case, by a trepan fixed upon the sternum; others make an incision betwixt the fourth and fifth ribs, reckoning from the bastard ribs upwards. They measure the length from the cartilago ensiformis to the posterior processes of the spine, and divide it into three parts. One of these they lay from the aforesaid process, or two from the sternum, and there make incision (*m*). It is better to make this wound six fingers breadth from the process aforesaid, which may be done by incision, actual or potential cautery. A canula must be introduced, and two, three, or four ounces of water drawn off every day. This wound must be made bigger or less, according to the thickness of the matter contained in the breast (*n*).

The third  
and fourth

According to Hippocrates, Guido, Am. Lusitanus, &c. this aperture must be made

The  
fourth and  
fifth.

between the third and fourth ribs, beginning to reckon from the lowermost: Fienus, Riverius, &c. say, it must be betwixt the fourth and fifth; and P. Ægineta, Vidus Vidius, Sennertus, Barbette, &c. most approve

(*m*) Act. Med. Hafniens. vol. 1.  
Exper. Chirurg. No. 31. p. 106.

(*n*) A. Nuck

prove of it betwixt the fifth and sixth. Some say it should be made between the eighth and ninth, and others between the ninth and tenth, at such distance from the vertebræ, that the depth of the flesh may not be an impediment to the operation ; but Mr. Sharp approves of it best between the sixth and seventh, half way from the sternum towards the spine, for reasons there mentioned. From this uncertainty among these great men, I think we may reasonably conclude, that any of these places will serve our turn well enough : that if nature points out any of these places by an external tumour, as she does sometimes, we ought there to perform the operation : and lastly, that if we take care not to injure the diaphragm, by making the wound too low ; or the lungs and pericardium, by making it too high ; or the intercostal artery, by making it too near the ribs ; we may in any of these places succeed in the operation.

The fifth and sixth.  
The eighth and ninth.  
The ninth and tenth.

Hippocrates (o), for fear of cutting the veins that run along the edge of the ribs, advises us not to make a wound betwixt them, but rather to perforate the body of the third rib itself. This precept Fienus

The to be pier

X 4

approves

(o) Lib. 1. de Affect. intern.

approves of in Dropfies, but is of opinion, fince the hole can be but fmall, that it will not fometimes be fufficient to difcharge the matter of an Empyema.

In the  
fcrotum.

When there is a collection of water in the fcrotum, tefticles, or indeed in any other part of the body, all good furgeons advife it to be let out as foon as poffible. This muft be done by puncture, incifion, cautery, feton, &c. Inftances of this kind of operation, are fo common in treatifes of furgery, that I fhall fay no more of it in this place (*p*).

What is to  
be done  
after the  
operation.

After the paracentefis has been performed, the firft day food is not neceffary, unlefs the patient be fainty. Afterwards he fhould drink ftrong wine, but not much; and by degrees fhould be brought to exercife, rubbing, the fun, sweating, fatigue, and proper food, till he is perfectly recovered. Warm bathing, often vomiting upon an empty ftomach, and fwimming in the fea in the fummer-time, are agreeable; and after a recovery, the patient fhould abftain a long time from venery (*q*).

## SECT.

(*p*) Fabr. Hildan. Obf. 65, 66, 67, 68. Cent. 4.  
Dodonæi, Obf. 39, 40, &c. (*q*) C. Celfus,  
Op. Med. p. 166.

S E C T. III. *Of irregular Practice.*

I have already observed how medicines were at first found out, and consequently by what means physic was at length reduced to the rules of art. Where authors treat of the cure of diseases by a regular method or way of practice, every thing which does not fall in with their particular scheme is branded with the name of empiricism; though sometimes perhaps founded upon as good reason and observation, as the doctrine they so earnestly endeavour to establish. A violent distemper, doubtless requires a violent remedy. Books (the more the pity) are not always to be believed. He that sometimes steps a little out of the common road of practice, will frequently be more serviceable to the afflicted, than he, who trusts altogether to the *avis* *regni* of the most celebrated author. For this reason I shall here give a few different methods of practice, which go under the name of empirical; but as they have once been serviceable, who knows but in desperate cases they may give relief again?

Empirical  
cures.

A bold and ignorant empiric cured drop-  
sical swellings in the legs, after the follow-  
ing



ing manner : First, He fomented the shins night and morning with a decoction of elder, wormwood, camomile, &c. in the lees of wine; then he laid on a cataplasm of the same ingredients mixed with bran. After he had done so for three days, he covered both the shins and feet with a plaster of Burgundy pitch all over, except a small hole upon each shin about the compass of a hazel-nut, where he applied an escharotic made of the ashes of the bark of the ash-tree. After twelve hours this was removed, when the water began to come out. The discharge was at first but little, increased daily, and at last, when the eschar dropt off, the water ran as out of a spring, till it was entirely discharged (*r*).

A surgeon, of good reputation and practice, has frequently taken down œdematous or dropical swellings of the legs in the following manner : He boils three balls made of fern-ashes in a gallon of water, so as to make a strong lye; then he dissolves in it an ounce of the balsamum saponaceum, made of salt of tartar and oil of turpentine. With this liquor he wets a quantity of bran, sufficient to cover the whole legs; and so lets the  
the

the legs lie in it till the serum oozes through the skin, which it will sometimes do in great quantities.

A physician of great note sometimes directs a decoction of sage and elder-flowers to be made; then a certain quantity of hard soap to be dissolved in it, viz. an ounce or two to a quart, and the swelled legs to be fomented with this liquor night and morning. Then he takes cabbage-leaves, cuts off the large stems, rolls them smooth with a rolling-pin, stews them with smooth ale in a stew-pan over a gentle fire, till they are soft, and after fomenting covers the legs with them, and so rolls them up. In three or four days, he says, the humour will begin to drain away; but upon trial, I have sometimes known the leaves become dry and brittle, and so repell the humour as to endanger suffocation.

The lungs of an ox, slit and applied hot to the soles of the feet, has caused a drain sometimes, and so taken down these kind of swellings, as I have been informed by a person of credit.

A certain empiric thus cured an Hydropic person, who had both an Ascites, and Anasarca. He took wormwood, rue,  
sage,

sage, and lavender, of each five handfuls, and boiled them in some gallons of spring-water, adding as much common salt as would make it like brine or pickle. In this was boiled a thick, strong cloth, wherein the patient was wrapt entirely all but his head. He was then put to bed, and ordered to sweat five or six hours, or until the spittle flowed out of his mouth like the brine itself. He was then taken out of the cloth, and put into another hotbed, where he again sweat for three or four hours. In the mean time he drank plentifully of Spanish wine; and at the second administration, they added to the decoction a large quantity of cow-dung (*s*),

The prior of Cabrieres, who in the last century made a large collection of rarities and gave them to the king of France, among his secrets in physick has the following method, by which he pretends to cure all sorts of Dropsies. Take filings of steel and spirits of vitriol a certain quantity, and make into a powder (*t*). Of this the patient must take six grains every day. A small  
glass

(*s*) A. Pitcairn's Elements of Physick, p. 285.

(*t*) Biblioth. Anatom. vol. p. . but the quantities of the simples are not here mentioned.

glass of a decoction of smallage in claret, with a small quantity of fena and chrystal mineral, must also be taken in a morning. The decoction and powder must be used alternately, and he recommends the dropping of spirit of salt into the decoction.

C H A P.

## C H A P. IX.

*How to prevent the return of a  
Dropſy.*

**H**AVING now gone through all the poſſible ways, whereby the water of a Dropſy may be diſcharged, I come next to ſpeak of the ſecond indication of its cure, viz. how to prevent its returning again.

In all manner of diſeaſes, relapſes are dangerous; but if a Dropſy returns, when it has been once cured, if we may believe Hippocrates (*u*), there can be no hopes.

Many perſons, it is true, have been cured of Dropſies by evacuation only, as may be ſeen in ſeveral hiſtories related in this treatiſe; but for want of regularity, and a courſe of proper medicines, though the water has been carried off, and the patient has been thought out of danger, yet the diſorder has returned, and in a ſhort time convinced the ſick man of his folly, in not complying with his phyſician's rules. It is  
therefore

(*u*) Coac. Prænot. ſect. 2. p. 191.



therefore doubtless extremely necessary, for fear of such accidents, to give either while we make evacuation, or immediately after, such alterative medicines, as may help to restore the tone of the weakened solids, may heal the breach of the lymphatics, invigorate the blood, remove obstructions and viscidities; and, in short, may bring the body to a sound and healthful state again.

A right use of the non-naturals, as they are called, is of the utmost service in all chronical disorders; and therefore, in the Dropsy, temperance as we have already observed (*x*), is absolutely necessary, let the cause be what it will. Rest, thirst, and fasting, according to Celsus, easily cure a Dropsy at the beginning; and the same author says, that walking much, running, frictions, and sweating, are adviseable in every kind of this distemper. We have also made it appear, in the place above quoted, how careful we ought to be in observing the proper times for sleeping and waking, as also for changing the erect and horizontal position of our bodies.

By a right  
use of the  
non-na-  
turals.

Tempe-  
rance.

Dr.

Air.

Dr. Willis observes, that those people who live in fenny places, and upon the coast, are subject to Dropsies, from the air being too much loaded with noxious vapours; and also that they are easily cured without medicines, by only removing into a hilly country, and into such places as are more open to the sun. Dr. Barry, in his *Treatise of Consumptions*, assures us, that it is evident, from observations made on hydropical persons, that they receive frequently a considerable addition to their weight in a moist air, from the water imbibed through the pores of the skin. Now, if these gentlemen's observations are true, we need nothing more to shew us, how careful we ought to be in chusing a dry, light air, for all such as are subject to dropfical disorders.

A moist  
air.

Exercise.

In the beginning of all kinds of Dropsies, while the load of water is not too great, nor the vessels too much distended, exercise of all sorts will be found as serviceable in this, as in other chronical diseases. Hippocrates (*y*) says, that dropfical persons should labour till they sweat; from whence H. Mercurialis (*z*) is of opinion, that Theodorus Priscianus

(*y*) Lib. 5. Epidem.  
p. 316.

(*z*) De Arte Gymnast.

Priscianus drew this conclusion, that dropfical persons may probably be cured by constant labour, and the continual shocks which proceed from exercise. C. Aurelianus, after tapping, advises to go to sea; and if this does not do, then to take hellebore: and Celsus says, that when the water is drawn off by wounds in the legs, the body should be shaken by gestation; and that then, exercise and food should be increased till the recovery is compleated. The antients had so great an opinion of all kinds of exercise, that Hippocrates (*a*) declares, no man that eats can be in health unless he labours. In this distemper you will find them recommending wrestling, vociferation, going to sea, being carried on men's shoulders, in a coach, on horseback, &c. as may be seen in that elegant Treatise of Mercurials above quoted.

The food of dropfical persons should be of a middle sort, not too hard of digestion according to C. Celsus. Dr. Strother (*b*), in his Essay of Health, very justly observes, that the diet should be different, in this as well as other disorders, according to the nature of the distemper. If the blood be

Y Diet. too

(*a*) De Diet. lib. 1. Aphor. 5.

(*b*) P. 67, &c.

too thick, the food should be attenuating, diluting, &c. but if it is too thin, it should then be more drying, absorbing, &c. Al. Trallian is very particular about the diet of dropfical persons, and the way of treating such when in a fever.

Drink.

The drink in a Dropsy must only be sufficient to preserve life, and that such as will easily pass off by urine. Dr. Sydenham, who supposed all Dropsies were owing to the blood's being too thin, strictly forbids all small liquors in this disease, and allows of nothing but wine or strong ale, after the patient has been purged. Small and cooling liquors, continues he (*c*), though they are agreeable to the palate, only breed phlegm, and add to the mass of water: on the other hand, strong liquors, so they are not distilled spirits, so much promote health, that by them alone, it has sometimes, when lost, been recovered. The Arabians, I own, strictly forbid small liquors in a Dropsy; and Avicenna (*d*) would not let a dropfical person so much as see water: yet, notwithstanding what is here said, spring-water, and other small liquors, are many times  
more

Strong  
liquors.

(*c*) Op. p. 467.

(*d*) River. Med. Prax.

more serviceable in a Dropsy, than strong ones; they more easily pass off by urine; and, where the distemper proceeds from drinking hot spirituous liquors, must be the most adviseable. If a Dropsy proceeds from a hot intemperies of the liver, it may be cured by drinking spring-water, says J. Forestus (e). Fernelius assures us, that where the age is not too great, and the stomach good, he would choose to give spring-water, rather than wine, in a Dropsy; for he (f) says, it more readily takes away the cause of thirst, and does not any more than wine increase the watery humours. After the water of an Ascites has been drawn off by wounds in the legs, for two or three days the patient, according to Celsus, should drink water and sweet wine interchangeably. The use of cold water is commonly forbid in a Dropsy, yet the Spaw is famous for curing that distemper, many persons being yearly recovered by it, when drank upon the spot; and, in London, spaw-water, says Sir Richard Blackmore (g), cured an Anasarca, when all other medicines had proved ineffectual. The patient began with half a

Spring-  
water.

Spaw-  
water.

Y 2. pint

(e) Obs. 27. p. 238.

(f) Consil. p. 1107.

(g) On the Dropsy, p. 47, &c.



pint in a day, and by degrees increased the dose, till he came to a whole flask. I know a person, says Mr. Boyle (*b*), of great quality, who in a case complicated with a Dropsy to a great degree, being thought incurable by her physician, surprisngly recovered by drinking the waters of Tunbridge. Whether the waters of Bath or Bristol are more judiciously prescribed in this disorder, may be doubted by some persons; but Dr. Winter, thus absolutely (*i*) puts an end to the dispute. If a jaundice is joined with the Dropsy, the Bath-waters are preferable; but where diuretic and drying medicines are only required, the Bristol-waters do the most service, according to this gentleman.

By alterative medicines.

The alterative medicines, which by experience have been found most serviceable in a Dropsy, are chiefly had from the vegetable and mineral kingdom. The former comprehends all bitters, spicy, aromatic, pungent, and drying medicines; and the latter all such as remove obstructions, viscidities of the blood, &c.

Bitters.

There are no bitters, especially of the aromatic kind, but what do great service in

(*b*) Works, abr. per Shaw, vol. i. p. 98.

(*i*) Cyclus Metasyner. p. 43.

in all manner of Dropsies. Their names are so well known, and their properties so frequently enlarged upon by authors, that I shall only mention two or three of them. A decoction of horehound in smiths-water is of good advantage in all kind of Dropsies (*k*).

Hore-  
hound.

There are few chronical distempers where wormwood is not of advantage, and especially if the stomach is affected, as it generally is in almost all kinds of Dropsies. Dr. Micheal cured several of this disease by an essence of it dropped into their drink : Matthiolus used the conserve, for the most part, with success ; and Eraustus says, there are few simples better than wormwood in dropical disorders. The Roman wormwood is by many preferred to the common sort, as being a more pleasant bitter ; but the latter is equally, if not more powerful, than the former.

Worm-  
wood.

The cortex peruvianus, china china, quinquina, pulvis patrum, Jesuit's-bark (*l*), or as it is commonly called, as superior to all

Jesuit's-  
bark.

Y 3

other,

(*k*) A. Pitcairn's Elem. Phys. p. 286. (*l*) Cardinal de Lugo first brought it into France in 1650, and was a Jesuit ; whence it was called the Jesuit's-Bark. Dictionar. de Commerce.

other, THE BARK, is one of the most useful and beneficial medicines that ever was discovered. It is now almost a century since it was first brought into Europe. As we were at first entirely unacquainted with its nature, so it was then often given at improper times; and therefore had entirely been discharged the shops, had not Dr. Moreton, and other ingenious physicians, stood up in the use and defence of it (*m*).

Mr. Quincy has made a philosophical enquiry into the nature, and has endeavoured to explain some of the properties, of this incomparable medicine. Whether his or any other account of it is sufficient to satisfy the curious, I shall not at present take upon me to enquire; but shall rather enumerate some of the many wonderful effects it has upon human bodies, as well in the Dropsy as other distempers.

After the last epidemical fever which began at Kidderminster in 1728, and soon after spread not only over Great-Britain but all Europe, more people died dropfical in three years, than did perhaps in twenty or thirty

The fever  
in 1728.

(*m*) The use of it was quite laid aside in France, till Dr. Talbot, in 1706, brought it once more into reputation. Shaw's Pharmac. Edinburg.

thirty before. As the bark was more used now, than at any time since it first came into Europe, not only the vulgar but several eminent physicians began to suspect and condemn it. Dr. Strother would have us believe there was little or none good in England at this time ; and that it was all either mixed with other barks, or had lost its specific properties by being too long kept : but I am of opinion, we never had better than at this time ; that the fault was not in the medicine, but in the prescriber : and that never more persons received benefit from any one simple, in any period of time, though many it must be allowed did at this time die of all kind of Dropsies, especially the Anasarca.

Before that fever came among us, we had a very unwholesome constitution of the air, for a long time together. The wind was constantly in the east for many months ; we had a very wet March, and the air was as cold in May as in December. The fruits of the earth were by these means gathered in very small quantities, and afforded but little nourishment, and loaded the body with crude and indigested humours. The pores of the skin having been a long time thus obstructed, the blood and other juices be-



came viscid and fizy. The nerves were generally affected; the pulse low, urine pale, tongue dry, and all the other symptoms, which arise from a blood over loaded with morbid matter. A nausea, or constant inclination to vomit, diarrhæa and other fluxes, attended with faintness and lowness of spirits, were the general complaints. The blood was generally thick, and as florid as if it had been taken from an artery; yet bleeding seldom gave relief: it always brought on great weakness, increased the lowness of spirits, and generally did more harm than good. Hot medicines, such as the theriaca, rad. serp. virg. &c. were always destructive to those who took them. Diluting plentifully with small camomile-tea, sack-whey, &c. with good quantities of sp. C. C. per se, Riverius's mixture with sal. absinth. succ. limon. & aq. cinam. ten. repeated every six or eight hours, after gentle purges and vomits, almost constantly gave relief; and brought it to a regular intermission; for it was of this kind from the beginning. Many persons found some symptoms of a fever one day, and then continued well for two or three, and sometimes longer, before it made a second visit. During this interval, if the  
party



party took any fresh cold, he was almost sure to miscarry, at least to be seized with great violence. As such persons as were most exposed to the inclemencies of the air and weather, were much greater sufferers than those who lived at ease, and fed upon the best kind of food in cities and great towns, this frequently was the case. The second seizure being generally thus violent, the bark was crowded in upon the first remission, when perhaps the fever still continued, and the urine had little or no sediment. By this hasty procedure, the feverish matter was either thrown upon some of the more noble parts, and so death was the immediate consequence; or else, being only pent up in the vessels of circulation, it soon appeared in a tumour of some kind or other, and for the most part dropical. This being the case, the considerate prescriber found it necessary to wait for a better intermission; to purge several times before he gave the bark; to give rhubarb, salt of steel, æthiops mineral, cinnabar, and other purging and deobstruent medicines along with it; and lastly, to call in aromatics, and volatiles of all kinds to his assistance. By this means the bark at length recovered its lost reputation;

tion, and saved the lives of many thousands. For my own part, as this was my way of treating this fever, from the time it first came among us; so, I thank God, few persons died under my hands, where I was called in at the beginning of the illness. But to return.—

The bark is one of the best stomachic alterative medicines in the whole *Materia Medica*. It is almost as infallible in curing hæmorrhages from internal causes, as in stopping intermitting fevers, and yet at the same time, it promotes the menses; for it attenuates more powerfully than steel, but does not raise the pulse near so much (*n*). After any large evacuations, it is one of the greatest and most noble cordials in the world: it is of excellent use in all nervous disorders, convulsive, hysteric and hypochondrical; and is often serviceable in throwing off a gouty humour to the extreme parts; nay, when joined with steel, it has procured a regular fit, when all other medicines have proved unsuccessful (*o*). Of late it has been found as great a specific in stopping mortifications from internal causes,

(*n*) Friend's *Emmenalog.* p. 156.  
*Engl. Malad.* p. 144.

(*o*) Cheney's

causes, as in any of the foregoing disorders ; I never yet knew it fail, though I have had frequent opportunities of trying it, and very lately in an old man eighty-three years of age ; where, upon taking it, the mortified part separated from the sound, the foot dropped off at the ankle, and though the bones are foul above the joint, the flesh looks well ; and if he would have suffered the limb to have been cut off, I doubt not but the cure had been compleated by this time, it being near four months since the mortification first began.

A gentleman had been twice tapped for a Dropsy of the abdomen, which as often returned again. At last he took a drachm of the Jesuit's-bark every day, for six weeks together, when he began to make water freely, and so recovered perfectly (*p*).

M. Lister (*q*) cured a man of a Dropsy, which came from an intermitting fever, with this medicine ;

R. Cort. peruv. a ʒss. ad ʒj. sal. gem. vel sal. absinth. ʒj. elater. a gr. 2 ad ʒss. m. f. bolus.

From

(*p*) S. Dwight de Hydropc.  
cas. 7.

(*q*) De Hydrop.

From what has been said, it is evident this most admirable medicine is as necessary in a Dropsy as in many other disorders; that it may, and in this case ought to be, given with deobstruents; and that it still retains its specific properties, when given with the strongest cathartics.

Acrid,  
pungent,  
and spicy  
medicines.

All acrid, pungent, and spicy medicines invigorate the blood, brace up the solids, attenuate the juices when viscid and sily; and by this means frequently become most powerful diuretics. The best are the seeds of mustard and wild carrot; the berries of bay and juniper, and the roots of garlick and horse-raddish; pepper, &c.

Mustard,

R. Sem. sinap. integr.  $\mathfrak{z}\text{iv}$ . ponatur in lagen. vitrea cum alæ  $\mathfrak{ssj}$ . post 3 dies depromatur ad usum.

R. Sem. sinap. contus.  $\mathfrak{zj}$ . coq. in feri lact.  $\mathfrak{ssj}$ . parum. Colatura bibatur ad libitum.

R. Sem. sinap. pulv.  $\mathfrak{z}\text{ss}$ . conf. absinth. Rom.  $\mathfrak{z}\text{ij}$ . sem. dauci. pulv.  $\mathfrak{z}\text{ij}$ . cum f. q. syrup. e  $\mathfrak{g}$ . rad. f. electuar.

Juniper-  
berries.

R. Bacc. junip. probe contus. & in saccul. ligat.  $\mathfrak{z}\text{iv}$ . coq. in vin. canar,  $\mathfrak{ssj}$  ad  $\mathfrak{ssj}$ . cola. Dosis  $\mathfrak{z}\text{iv}$ . ter in die.

All these are good medicines. The last is from Dr. Fuller, who tells us, that Rulandus used to boil four handfuls of juniper-berries in two quarts of whey, till a third part was consumed ; and that he gave it for common drink in an Ascites. Riverius and Etmuller assure us, that they also frequently gave it with success after the following manner.

R. Bacc. junip. contus. m. jij. vin. generos. q. f. Coq. ad medias, & dentur  $\text{ʒij}$ . (r)  
mane singulis diebus, & corpus optime tegatur.

Matthiolum cured several persons of this disease, with a lixivium made of the ashes of this shrub in white wine, which he gave to four or five ounces for a dose. This, he says, is a powerful diuretic ; and from him Etmuller commends the rob juniperi & malvaticum juniperinum, and at the same time assures us, they are the best kind of diuretics (s).

Many pompous and costly medicines may be formed from the simples above-named ; such are the decoct. allii. decoct. diureticum,  
decoct.

(r) Musitanus says,  $\text{ʒvj}$ . Trut. Med. p. 692.

(s) Etmuller, Op. Med. vol. i. p. 300.



decōct. juniperi secundum in Fuller's Pharmacop. &c.

Of diet-  
drink.

Diet-drinks made of these ingredients are much commended by many authors; but I never prescribe any for the following reasons: 1st, Ale is but a very indifferent, or rather a very improper, vehicle to take medicines in, especially in a Dropsy, where the juices are always too viscid: 2d, Whatever quality of any simple is imparted to ale, it may be better obtained from an infusion or decoction of it in wine or water, by which means the medicine must be more agreeable both to the sight and palate of the patient, and will be less in quantity: 3d, Minerals, as antimony, mercury, iron, &c. may, with far greater advantage to the patient, be given in a solid form, as pills, bolus, or electuary; because they are so much heavier than the menstruum: 4th, Those persons that are not used to drink ale in a morning, can ill dispense with it when fasting; for it will certainly pall the appetite, and cause dulness and heaviness all day: 5th, A constant course of purging physick for a month or six weeks together, without confinement, or a regular way of living, is in my opinion a very random kind of prescription. It is next to impossible,

possible, in an air so very changeable as ours is, but in so long a time as six weeks, a person must take cold. By this means a distemper must be so far from being cured, that it must frequently be fixed, and put out of the power of medicines to remove. I have often met with severe cholics and inflammations of the bowels from this cause. But for tipplers, and such as will take medicines in no other form, the following medicines may be agreeable: Fuller's cerevisiæ dauci & arthritica; cerevis. Hydropica in the Pharmac. Pauperum, cerevis. diuretica in Bates; &c.

All the aromatic woods, as guaiacum, Woods. fassafras, sarsaparilla, &c. promote insensible perspiration, cause sweat, increase the urine, &c. and, when boiled in aq. calcis, become very great driers, and are therefore very proper in all dropfical disorders. Forms may be met with in every Dispensatory. The decoct. e lign. and the elect. e sarsa in Fuller; the bals. polychrest. in the London Dispensatory; are all very good medicines, &c.

Most of the minerals used in medicine are powerful deobstruents, and act very safely and gently, before they are too much altered by the chemist's furnace. There is Minerals best given without chemical preparation.

no preparation of them, which is not rougher than the simples themselves; and the hazard we run in taking them, is always proportioned to the quickness of their operation; neither is any disorder to be cured by any of them, which will not yield to the simples themselves. For this reason, many of the best physicians (z) have constantly given them without any chemical analysis. Mercury, steel, antimony, &c. often prove more successful, as they are taken out of the earth, than when they have been tortured by the laboratory.

Crude  
mercury.

Belloste (u) has abundantly demonstrated, not from theory but many years experience, that crude mercury is not only a safe but powerful medicine; and is of opinion, that it deserves the name of a panacæa, or universal medicine, better than any of those which have been published under that name. He gives us histories of cures performed by it in an inveterate pox, schirrous and scrophulous tumors, the cholic, stone and gravel; in gouty pains, and all cutaneous eruptions; and assures us, that it may very safely be given in all nervous disorders, as apoplexies, palsies,

(z) See Sir Rich. Blackmore on the Spleen, p. 74; &c.

(u) Hospital Surg. vol. 2.

palsies, &c. There are not many medicines to be met with among the most sanguine of the chemic writers, to which so many noble and different qualities are assigned; and would it always prove successful in the foregoing cases, mankind would not stand in need of any farther assistance. Whether it may or ought to be given in such large quantities, and for so long a time together, as a late whimsical (*x*) writer, has made the world believe, is what I shall not here consider, the subject having been already so well treated of by an experienced physician (*y*), a gentleman and a good scholar. But, when mixed with some gentle cathartic, it generally answers our expectation. What Belloste joined with it I know not, but Turner (*z*) gives it with pill. ruff. or pill. coch. in small quantities, night and morning for many days together. Mr. Morgan mixes rhubarb and cochineal with it, and when given in the same manner, says it commonly proves an effectual, safe, and benign diuretic (*a*).

## Z

## The

(*x*) T. Dover's Antient Phys. last Legacy.      (*y*) Dr. Turner's Answer to it.      (*z*) Answer to Dr. Dover.  
 (*a*) Mechanic. Prac. of Phys. p. 279.



Steel.

The filings of steel, ground with sugar-candy to an impalpable powder, have upon trial answered beyond expectation, when some of the most elaborate preparations of it have proved ineffectual (*b*); nay the iron-stone itself (*c*), though it contains so much earth, is a medicine not at all inferior to some chemical productions.

What has been said of steel and mercury may well be applied to more, if not all the other metals and minerals; so that I shall only observe farther, that when we read the virtues and praises of a favourite medicine in a chemic author, we ought to make great allowance for bigotry, and must not be surprized, if we do not always find it exactly answer the character bestowed upon it.

Mineral  
water.

When minerals in substance do not answer, there is a natural preparation of them, which far exceeds all that chemistry has hitherto been able to invent. Dr. Sydenham is positive, when steel in substance does not give relief in hysteric disorders, the green-sickness, a suppression of the menses, or any low state of blood, that Chalybeate-waters, drank at the fountain-head, will seldom or  
never

(*b*) See R. Blackmore, on the Spleen, p. 72.

(*c*) See Dr. Sydenham, Op. Med.



never fail us. It is surprizing to observe what different effects these kind of waters have upon human bodies. Spaw-water is an effectual medicine in a suppression of the menses, and yet nothing more easily, or more effectually puts a stop to too great a flux of them. I have already proved, that these kind of waters are often proper in drop-sical disorders; that thousands are every year cured by drinking them upon the spot; and shall only make this one observation farther, that they are of excellent use in strengthening a decayed and weakened constitution, and are therefore a most exceeding proper and powerful medicine in preventing a second flux of humours upon any part, when the first by art has been carried off or abated.

F I N I S.



